

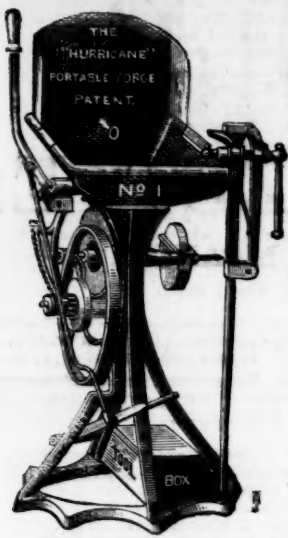
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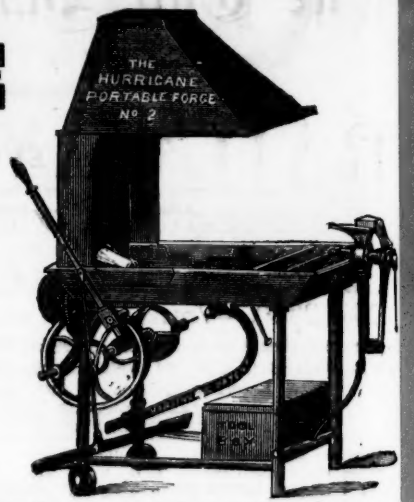
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a Brazier's Hearth, a Mine Ventilating Apparatus, a Tool Grinder (Emery), a Cutter, a Circular Saw and Bench, a Polishing Wheel, a Chuck, Two Drills, a Drill Rest, and a Tool Box.



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No. 2.—DITTO. Weight, 156 lbs. Fitted with 24-in. Vice with Anvil, 4-in. Emery Wheel or Grindstone, Chuck, Cutter, and two Drills, a Buffing Wheel or Polisher, Spanner, Tool Chest, Lock and Key, &c. Lever and Treadle. Muffler, 15s. extra.	£7 7s. 0d.
No. 3.—FORGE AND HEARTH, 26 in. by 34 in. Weight, 160 lbs.: 10-in. patent Fan Blast, Spanners, and 5-in. Emery Wheel, complete on frame with four legs and two travelling wheels. Lever and Treadle.	£8 8s. 0d.
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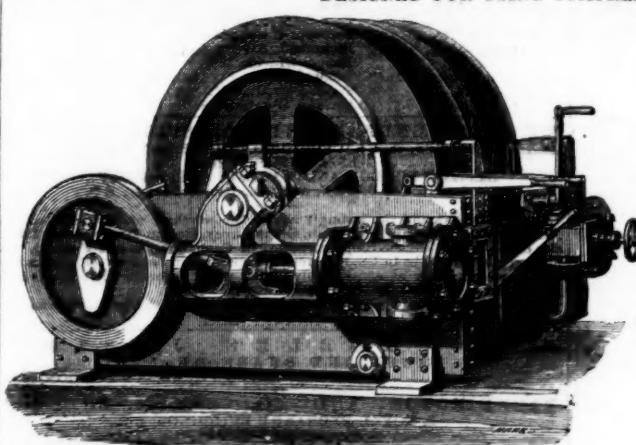
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FOREIGN MINES.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, June 23: Produce eleven days (first division of June), 10,000 oits.=3875*l.*; yield, 5·8 oits. per ton. Profit for the month of May, 5500*l.*. All going on well.

FOREIGN MINES.

ST. JOHN DEL EY.—Telegram from Morro Velho, dated Rio de Janeiro, June 23: Produce, 150 tons (this division of June), 10,600 tons, 3875 ft.; yield, 5 8/10 cts. per ton. Profit for the month of May, \$5000. All going on well.

RICHMOND CONSOLIDATED.—Telegram from the mine at Elko, Nevada: Week's run, \$80,000, from 1200 tons of ore. Refinery, \$57,000.

— R. Rickard, June 2: Report of the different operations for the past week: The 200, south from No. 16 chamber, has been extended 18 ft. in ledge matter; in the present end there is no ore, and work has been suspended. The 200 north-west drift has been advanced 5 ft. in hard limestone. The 200, drift, north from No. 16 chamber, has entered a large natural cave 85 ft. long, 40 ft. wide, and 35 ft. high; the northern end of this cave is immediately over the rise in back of the 200. The 200, all mylole, has been extended continuously on both sides from the 200 to the No. 16 chamber; the bottom of the cave there is debris, but ore can be seen on the western side; we are now putting in ladders to examine the top, where we expect to find some ore. The 400, north from No. 11 chamber, has been extended 5 ft. in hard ground. The 500, west from No. 12 chamber, has been connected with No. 15 chamber, which will facilitate the extraction of ore from this part of the chamber. The 500, north from No. 12 chamber, has been connected with the winze sunk from north of No. 14 chamber; in the winze there are good ore indications, and at places some bunches of ore, as follows: The 600 west drift has been extended 18 ft.; the ground is favourable for ore, but there is no ore in it. The 600, north from No. 12, 600, west from south fissure, have been extended 9 ft. without any change. The 700 west on fissure, has been extended 29 ft. in favourable ground for drifting. The drift from winze b. low the 700 has been extended 38 ft., with ore all the distance, varying in width from 1 to 3 ft., which is of good quality. In the winze connecting the 600 and 800 levels the dividing and ladder way is being put in preparatory to starting a drift below the 600. The 900 west drift has been extended 4 ft. in hard ground. The 900 north has been advanced 11 ft. without any change to mention. All the chambers are opening out well, and show no signs of exhaustion in the quantity of ore. The 1000, on fissure, has been advanced this morning 10 ft. in the drift, the ore placed being best. The furnaces were idle, except 43 hours; they will be again running smoothly.

compensated to do their own business."—and we understand they have this week dispensed with the services of Capt. Andrews. The shareholders are to be congratulated on the step at last taken. Readers of the *Mining Journal* will recollect that such a step was counselled last year and again in February in our Notes. Various points may alter in value, but we believe that Crebor will be a paying mine for some time to come. There is scarcely a doubt that the shares will be selling higher in a very short time, and purchasers acting on our advice will realise a profit. It is better, as we shall see, that the mine should be sold at once than that it should be sold later, as the shares will then be worth less. There is not soon a rush for lead shares. Good shares with no further liability should be bought, and no better can be found than North D'Esreshy Mountain shares at 20s. The mine is managed by a most reliable and competent agent, and is opening out in a most promising manner. The appearance of the winze in the No. 2 adit leads one to expect very important results at an early date. There is no risk in buying shares at 20s

ALFRED E. COOKE.

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ALFRED E. COOKE.

ALMADA AND TIRITO CONSOLIDATED.—Telegram from Mr. Clemes, dated June 3: I have remitted you bullion, \$2900.

June 23.—As under please find my monthly report upon this mine. The 120 west is now driven 79 fms. west of shaft. The lode in this end at present is very strong and masterly, showing spots of lead, but not rich enough to value. The lode, which has been running south for some time, is regaining its proper course.—The 105 West? This level is now 157 fms. west of shaft, and for the last 7 fms. we have been driving along a lode, giving in production from 1 to 2 tons of lead ore per cubic fathom. We appear at the top of the stope, the lode being on the bottom of the 90 above. The stope in the back of the 105 west adjoins the 90, and is 24 fms. wide, and 18 fms. high, and contains 150 tons of lead ore on the average 2½ tons of lead ore per cubic fathom; mean width, 18 ft. 6 in. The 90 is now 166 fms. west of Seaham's shaft. We have a very pretty lode in the footwall of the level, worth 18 cwt. of lead ore per cubic fathom. The cross-cut at the 162 west is driven 4 fms. 4 ft., but after the first 3 ft. nothing of value was discovered. The stope in the back of the 90 are on the average 17 ft. 6 in. wide; worth for lead ore 18 cwt. per cubic fathom. The 75 fm. perpendicular is as usual as the 90, and is 24 fms. wide, and 18 fms. high, and contains 150 tons of lead ore on the average 24 fms. wide, and 18 fms. high, and contains 150 tons of lead ore on the average 2½ tons of lead ore per cubic fathom. The 60 west is driven 180 fms., but nothing of value discovered. We are pushing this level forward to get under Edwards' shaft as soon as possible. The stope in the back of the 60 fm. level is on the average 20 ft. wide; worth 24 cwt. of lead ore per cubic fathom. The stope in the back of the 30, east of shaft, is 12 ft. wide; lode worth 1 ton of lead ore per cubic fathom.—North Lode: We have driven 28 fms., but have not yet intersected the lode. I think, however, from the appearance of the ground to-day that we are not far from the lode, and are depending upon the underlay of the lode to get it, and are going on satisfactorily. Our sales of ore this month are 200 tons of lead ore, and 150 tons of blende.

W. H. WILLIAMS.

CAPE COPPER MINING COMPANY.

The directors' report, prepared for presentation at the meeting on Wednesday next, states that the profit and loss account for 1879 shows that the value of the ore and metal returned for that year was 254,562*l.* 10*s.* 1*d.* The average assay of the ore was 30½ per cent., and the average price obtained has been 12·3½ per unit. The costs were 165,340*l.* 4*s.* The result is a net profit for the year of 89,222*l.* 6*s.* 11*d.* which, with the balance of 17,399*l.* 1*s.* 1*d.* from 1878, makes a total of 106,611*l.* 7*s.* 2*d.* This amount has been thus dealt with:—52,500*l.* has been paid in dividends, 1656*l.* 6*s.* 3*d.* in income tax, 3500*l.* has been carried to the landed estates and buildings sinking fund, 3500*l.* to the stocks, plant, and machinery guarantee fund, 10,000*l.* to the railway and jetty sinking fund, 1000*l.* to the mineral rights and inferior ore sinking fund, 1000*l.* to the smelting works sinking fund, and 8000*l.* to the reserve fund, leaving a balance of 25,455*l.* 6*s.* 11*d.* to be carried forward, which is the sum of 254,562*l.* 10*s.* 1*d.* as before declared.

The directors have considered it desirable to add these amounts to the various sinking funds, and to the reserve fund, as the profits for a portion of the past year were exceptionally large, owing to the favourable prices for copper ore that existed for a short period, and of which the directors took advantage by making sales of all ore of which they were able to ensure prompt delivery, and because the great depression which had previously ruled had for some years rendered it impossible to carry off to those funds such amounts as in more favourable circumstances would have been desirable.

The use of the rock drilling and diamond boring machines has been suspended. The use of rock-drills was found unprofitable compared to boring by hand, owing chiefly to the great cost of the coal required to supply them with power. The nature of the deposit at Ookiep, and the facility with which it can be rapidly developed, materially diminish the advantage derivable from mechanical appliances for driving and sinking when working under the conditions existing there.

DEPTH OF THE COMSTOCK MINES.—There are now three mines in Gold Hill which have reached the 3000 level, and of these, two are over 3000 ft. in perpendicular depth. The Belcher last year sunk its dump 34 ft. on the slope below that level. The Crown Point has also the sum of its incline winze below that level. The Yellow Jacket has reached the 3000 level with its perpendicular shaft, which is now the deepest straight hole in the ground on the continent. As soon as the diamond drill determines that no water lies below the present workings the shaft will be sunk 66 ft. further and a dump then made. It will then be the deepest mine in America. Its 3066 level will be even with the 3000 of Belcher and Crown Point.—*Gold Hill News.*

RINGOLD.—Prof. Price, with a corps of engineers and workmen has been busily engaged in laying off the ground and preparing for the erection of works and prosecution of active mining operations at the Epley Mine, near Ringold.—*Mountain Democrat*, May 29.

INSPECTORSHIP OF METALLIFEROUS MINES FOR CORNWALL.—The appointment of Inspector of Metalliferous Mines in the West of England, in the place of Dr. Foster, who removes to North Wales is definitively made, as previously stated, and the gentleman appointed, Mr. Frecheville, will commence his duties early in July. The name of the new Inspector is quite an unfamiliar one in this locality, and he is not at all known in the district. He has, however, had a good deal of experience of mining matters in different parts of the world, and was trained at

Ferny-street, where he studied in 1869, subsequently becoming an Associate of the Royal School of Mines. The district assigned comprises Cornwall, Devon, Somerset, and part of Dorset. The appointment is worth, we believe, 600*l.* a year, free of all expenses. The Morning News remarks:—One of the first appointments held by Mr. Frecheville was as mining engineer in Japan, the post singularly enough, being one that had been offered to Dr. Foster, who however, was about to be married, and did not accept it. Mr. Frecheville remained in Japan, from 1870 to 1875, and then was engaged to manage the gold mines of the Maracá field in Guayana. Since then he has been engaged in the conduct of mining operations in various parts of the United States and in Spain. He brings to his new duties a familiar acquaintance with practical mining under most varied conditions; and in all probability will soon familiarise himself with the conditions of mining as practised in Cornwall and Devon, and the bearings thereon of the Metalliferous Mines Act. He is fortunate, however, in having had as his predecessor so excellent an organiser and so thoroughly qualified an official as Dr. Foster, who has cleared away all the difficulties which at first beset the administration of the new legislation, and leaves the office to his successor in what we may fairly call thorough order—to use a technical phrase, a “going concern.” On the other hand, it is no easy matter for a stranger, even to follow a gentleman who is so universally esteemed as Dr. Foster, and who has so thoroughly well known how to be at once considerate and firm.—*West Briton*.

[For remainder of Foreign Mines see this day's Supplement.]

SALE OF TIN ORE BY TICKET.—The following tenders for 60 tons of West Seton ore, 40 tons of Carn Brea, and 15 tons of Tincroft were sent in on the 23rd inst.:—

	West Seton.	Carn Brea.	Tincroft.
Daubuz and Co.....	£49 7 6	£48 10 0	£47 17 6
Boltho and Sons	48 12 6	48 10 0	47 17 6
R. R. Michell and Co.	48 12 6	48 10 0	47 17 6
Williams, Harvey, & Co. .	48 12 6	48 10 0	47 17 6
Redruth Company	48 12 6	48 10 0	47 17 6
Penrith Company	48 10 0	47 10 0	47 15 0

It will be seen that West Seton ore (60 tons) was sold to Dabuz and Co. at 49 $\frac{7}{8}$ ls. 6d. per ton, an excess of 15s. beyond the other next bidders. Bolitho, Michell, Williams, and Redruth tenders were exactly alike—48 $\frac{1}{2}$ ls. 6d. per ton. The Penpol Company was the lowest tender—2s. 6d. below the four last companies, and 17s. 6d. below Dabuz and Co., who became the purchasers. For Carn Brea tin (40 tons) the five old companies were exactly alike—67 ls. 6d. per ton. The Penpol Company was here also the lowest tender—4s. 6d. per ton below the buyers. For Tincroft tin (15 tons) the five great companies were exactly alike—47 $\frac{1}{2}$ ls. 6d. per ton—2s. 6d. per ton above the Penpol Company, an excess of 2s. 6d. per ton only. It will be seen that the Penpol Company was the lowest tender in each instance. In the case of Carn Brea ore they were 1 $\frac{1}{2}$ p. per ton below the best bidders, and in the case of Tincroft 2s. 6d. only, and the same with regard to West Seton ores. A disparity of 2s. 6d. per ton is exceedingly small.—*West Briton*.

PESTARENA.—line 15: Val Toppa: The Intermediate end under Zero, on Marino Rosso lode, has become poor, the ore seeming to take a greater rise than the level. At No. 1 level, on west lode, the ore part seems to be further east than the end, and the level is being turned to intercept it. No. 2 level, on east lode, is being turned to intercept the ore, which is on a flat lode, whilst the same level, on the flat lode, is going through a good channel of ground, chiefly talcose schist, with a small vein of ore following the back. At the Intermediate level, under No. 2, the end on middle branch has improved on getting through the cross-course; now worth 6 tons per fathom, and the most southern stope on the great quartz lode at this level is opening out a thick side branch east, which gives a good quantity of average ores. No. 3 level, on middle branch south,

shows a flat bed of coarse quartz, which it is hoped will develop into workable ores. The contact with No. 3 has been traced for some distance, and is now going again, more or less, to the west. No. 2 level north, on the western lode, will now be started also, to prove whether this lode joins the great quartz in that direction or again diverges from it.—Pestarena: The 33 and 34 levels, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 35 level, No. 1 lode, has a small lode in stiff schist, with good walls but no ore. At the 55, No. 1 lode, a little calcareous rock is appearing on the east side, and although producing no ore it is likely to do so soon. The 56 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 57 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 58 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 59 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 60 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 61 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 62 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 63 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 64 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 65 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 66 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 67 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 68 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 69 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 70 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 71 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 72 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 73 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 74 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 75 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 76 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 77 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 78 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 79 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 80 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 81 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 82 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 83 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 84 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 85 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 86 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 87 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 88 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 89 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 90 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 91 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 92 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 93 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 94 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 95 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 96 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 97 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 98 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 99 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore. The 100 level, No. 1 lode, has a small lode of coarse work, producing small quantities of ore.

quartz and pyrites sliding nearly to bottom, yielding 6 tons per fathom of 1 oz. per ton. The 80 north, on the No. 1 lode, is giving saving work, and likely to improve, there being strings of pyrites mixed with the rock. The trial drive from rise above the 80 north is poor, and the men are removed below to stop the ore being wanted. Ore is coming in at bottom of winze below the 100 north, and is likely well in both ends just now; north two good branches of ore are dropping in, producing 7 tons of 25 dwts. per ton, and south there is a regular lode of rich pyrites, yielding 6 tons of 30 dwts. per ton.

[For remainder of Foreign Mines see this day's Supplement.]

The following Reports were received too late for insertion in the proper place:—

COURT GRANGE.—J. G. Green, June 23: I beg to report progress for this week as follows:—The water is clear from the 65, but before pitching on the bottom lift it is necessary to put in a dropping pipe to keep cistern full and a plunger working with a full supply of water. This is now being done, and I hope to get it completed and cross-cutting at the 77 commenced in a few days. The 45 is improving in appearance. The 30 is worth 14 cwt. per fathom. The 14 is not so good; worth at present 10 cwt. per fathom. There is a lot of gosans

and loose ground the end, which I hope to get through and into richer ground again very shortly. There is no change to notice in the stopes. Most of the passes in the mine are full of stuff, and we have commenced to draw two stopes per day in order to clear same. We have got the stone-breaker repaired, and have this week been crushing until 10 o'clock every night, and shall continue to do so until we work off our stock of ore stuff while the water lasts. I have about 4 ft. of store-water in Broglin reservoir, but owing to a piece of loose rocky ground in the north side there is considerable leakage; when it becomes dry it will be all right.

AMERICAN LEAD.—A correspondent favours us with the statement of the Leadville mining output to May 8. The daily average during the week ending May 1 was 899½ tons; during the week ending May 8 it was 874½ tons. The smelters' output for the week ending April 26 was \$325,134; for the week ending May 3 it was \$292,724.

TREATING GOLD-BEARING SULPHURETS.—According to an invention recently tested with success at Philadelphia, the ore is first passed through a powerful rock-breaker, in which it is broken into small pieces. From here it goes into a pulverising machine, where it is reduced to grains so fine that they will pass through a sieve running 3600 holes to the square inch. Thence it is put into the ore roaster. This is the chief feature of the process. It is composed of fire-clay retorts of cylindrical shape, built one above the other in four tiers, the entire structure being 15 ft. high, 8 ft. wide, and 12 ft. deep. The

heat in the retorts varies, the lower one being the warmest and the upper the coolest. The powdered ore is passed into the rear of the top retort, and is moved slowly along by means of a comb worked by machinery until the front is reached; thence it falls into the retor

below, then moves back, and the operation is repeated until the last and bottom retort is reached, when it passes out, the whole operation consuming about four hours. By this process the sulphur is burned out of the ores, the base metals are oxidised, and the gold is left in a free metallic state. After this the ore, having been cooled, goes into an automatic amalgamator. Here it is treated with hot fumes of mercury, which instantly attach themselves to the precious metal, and amalgamate every particle of the free gold in the ore. By the other processes numberless small pieces of gold, which have no

gravity enough to attach to the plates, float away and are lost. With the use of hot mercury, however, these small particles are rolled into globules and are consequently saved. Again, when ordinarily treated small portions of gold become coated with copper and iron, and are thus lost. In this process, however, such a coating is stripped off by the action of the hot mercury, a condition of amalgamation which is never accomplished when cold mercury is employed. After passing from the amalgamator the ore is thoroughly cooled and then thrown into settling pans filled with water, which are kept agitated for the purpose of settling the quicksilver containing the gold. This is next placed in a retort, where the mercury is separated from the precious metals.

LEAD ORES.

Date.	Mins.	Tons.	Price per ton.	Purchasers.
June 18—Berlanga (to arrive)	220		£10 7 8	Panther Lead Co.
19—Foxdale	100		11 13 0	Weston, Son, and Co.
20—Gwen Fryf.	157		10 3 6	Walker, Parker, and Co.
24—Berlanga	80½		9 8 6	ditto
— ditto	150		11 3 0	Panther Lead Co.
— ditto	50		10 3 0	Easton
— East Roman Gravel	25		9 13 0	J. Walton and Co.
— Gorsedd and Nerilyn	10		15 0 0	—

RENDE

Date.	Mines.	Tons.	Price per ton.	Purchasers.
June 24—	Van	75	£2 7 6	Swansea Vale Co.
— ditto	50	50	2 7 6	Villiers Spelter Co.
— ditto	25	25	2 5 6	ditto

EPPS'S COCOA—GRATEFUL AND COMFORTING.—"By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well-selected Cocoa, Epps's Cocoa has been found to agree with all climates, and to be a delicately flavoured beverage which may save us many heavy doctors' bills. It is by the judicious use of such articles of diet that a constitution may be gradually built up until strong enough to resist every tendency to disease. Hundreds of subtle maladies are floating around us ready to attack wherever there is a weak point. We may escape many a fatal shaft by keeping ourselves well fortified with pure blood and a healthy frame. *See* *Courier Gazette*.—Sold only in packets labelled—"JAMES EPPS & CO., Homoeopathic Chemists, London."

NOTICE.

WEST GUNNISLAKE
(CLITTERS).

We strongly recommend these shares for immediate purchase at the price of £1 per share.

The Mine adjoins three very fine properties—viz., Gunnislake (a profit making mine, principally held locally); West Devon Consols (the shares of which are at a high premium, and will go higher); and Devon Great Consols—only the River Tamar between—an undeniably fine position.

It will be remembered that we particularly recommended the purchase of West Devon Consols at £1, and they rose steadily to over £4 in the Stock Exchange. They are now £3 to £3.4, and will go much higher.

We can supply a limited number (only) of West Gunnislakes at £1, but we expect the price will be higher next week; therefore, immediate application should be made. All the shares are taken and well held, and they are dealt in daily on the Stock Exchange.

CREBORS, WEST DEVON CONSOLS,
WEST GUNNISLAKE (Clitters), RUBY,
and PARYS COPPER are ALL GOOD
TO BUY.

JAS. SCOTT & CO.,

5, Copthall Buildings,

near Bank of England,

London.

Mining Correspondence.

BRITISH MINES.

ABERLYN.—John Roberts, June 23: I have nothing new to report this week. The stopes and the ends have just exactly the same appearance as last week. We have been hindered two or three days with the dressing, but we have some water now to go on again.

ASHETON.—J. Garland, June 23: The lode in the stope in the back of the 30; east of footway rise, is 3 ft. wide, and yields saving work for blende and lead ore. The pitch in the back of the 20, south of Mawr shaft, is without material change. A new pitch has been set to two men in the bottom of the 20, east of Mawr shaft. The pitch in the back of the 50 fm. level, east of boundary shaft, is yielding well.

BEDFORD UNITED.—R. Goldworthy, June 16: The lode in the 135 east is about 2 ft. wide, producing saving work. The lode in the 127 east has been taken down, and as far as seen is worth 104 per fathom. The lode in the 115 east is 2 ft. 6 in. wide; a very promising lode, now worth 122 per fathom. Two stopes in the back of the 135, two stopes in the back of the 127, and one stope in the back of the 115 are worth on an average 87 per fathom. We have commenced to costean for the Bridge lode, and hope to report something as to its appearance in my next.

R. Goldworthy, June 23: No lode has been taken down in the 135 or the 127 east since my report of last week. The lode in the 115 east has improved; now worth 122 per fathom. Four stopes are worth on an average 77 per fathom. I am pleased to say that we have cut the Bridge lode in costeaning, and as far as seen is all that can be desired. We now propose to cut down the costean pit and prepare to sink a trial shaft on its course.

BETTS-Y-COED.—M. H. Whitford, June 23: The 30 end to drive east of the flat-rod shaft by six men 1 fm. at 114; lode yielding fully 25 cwt. per fathom, and water flowing more freely, and from the appearance I expect a great improvement at this point in a short time; the end will open out a splendid section of valuable ground for stopping. A rise and stope in the back of the deep adit level east of engine-shaft by six men, at 30s. per fathom; the lode will yield from 10 to 12 cwt. of lead per fathom; this is in a piece of ground 14 fms. high and about 70 fms. long of valuable ground. A stope in the back of the deep adit level on the north part of the lode by two men, at 28s. per fathom; yielding 8 cwt. of lead per fathom. Three stopes in the shallow adit at 30s., 28s., and 25s. per fathom, and yielding in the aggregate 25 cwt. of lead per fathom. I would again remark that the sinking of the mine should be commenced as early as possible; this being carried out, and a little better price for lead, here is a lasting and remunerative property.

BLAEN CAELAN UNITED.—J. Pell, June 24: The cross-cut driving north at the bottom of the shaft in the 30, below adit, 55 fms. from surface, is driving in beautiful kilias, with branches of spar and spots of copper and lead, but not to value, about 8 or 9 ft. remain to drive. The stope in back of this level is not quite so good, but in the back of the 20 it has improved. The cross-cut to intersect south lode is this week in a soft blue kilias. All other points without notice. Machinery all working well, and there is an abundance of water.

BLUE HILLS.—S. Bennett, R. Harris, June 13: The 42 east end is worth 64 per fathom. The west end is worth 87 per fathom. The 30 east is worth 94 per fathom. The winze below this level is worth 122 per fathom. The 20 east end is producing some low-quality tin stuff, and the ground is getting somewhat easier for driving.

BODIDRIS.—H. Hotchkiss, June 23: The sinking of Meadow shaft, below the 90, is going on regularly; the rock is of a dark colour and thickly laid through with spar, wherein we find a sprinkling of lead ore. This ground very much resembles the ground we were sinking in the 100, and the appearance is in such abundance, and I look forward to the same results here when in the lode. The 60 east is poor for ore, but of a kindly appearance; the cross-cut driving south from this level is in good firm mineral ground, with spar interspersed throughout the end; progress here rather slow. In the 17 east of shaft the men have been clearing out their stuff and securing the ground, so that little has been done in driving since my last, consequently there is no change in the lode to report on. The cross-cut which we have been driving south from the middle at the 60 have been suspended, as I do not see anything worthy of a further trial here. I shall put these men to sink on the Macay-Pell lode from surface, and the Macay-Pell lode, and as near to the junction of this lode with the middle lode as I possibly can. This will be an excellent trial, inasmuch as it will be in maiden ground and in the western productive measures.

BWLCH UNITED.—N. Bray, June 24: Ritchie's engine-shaft is now 10 fms. 5 ft. below the 100, and I have decided to continue it to a depth of 12 fathoms before cutting lode and fixing pitwork; we are now carrying a few inches of the south part of the lode, containing quartz, lead ore, and blende its full width, and produce will soon be produced by cutting the lode above referred to; present price for sinking 182 per fathom. The 100, east of Ritchie's shaft, has been let at 64. 10s per fathom; the lode is about 2 ft. wide, but there is no alteration in its appearance since my last report. The 80 east is driving upon a lode nearly the width of the end; the men at this point will be removed to the 60 as soon as the stuff has been cleared; present price 64 per fathom. The stopes working in the back of the 70 never looked better than at present, and I am safe in estimating their produce at fully 30 cwt. of silver-lead ore per fathom.—Surface Work: The crusher-wheel and connections to the crusher are completed, and the carpenters are now engaged in fixing the cross-rod for driving the digger, and getting the latter in order of working. There are yet a few small fittings to be had from the foundry for this machinery, and I am urging their completion as much as I can, and I hope in the course of a week or two to have everything ready for a start.

CAMBRIAN MINES.—Thomas Giverville, June 19: ESQAIR FRATHE: Eastern Shaft: By Wednesday next we shall have finished timbering and dividing the shaft below the 85 yard level, and when this is completed shall make preparations for sinking another drift. The 100 yard level is now being driven, and is at present 2 tons of copper ore per yard. The lode in the winze sinking below the 85 yard level east will produce 2 tons of copper ore per yard. The stopes above the 70 yard level east will yield 2 tons of copper ore per yard. The lode in the 85 and 70 yard levels remains the same as when last reported on. The lode in the 45 yard level is one mass of gossan, and pouring out large quantities of water. We are preparing another lot of ore for market.

CARNARVON COPPER.—John Roberts, June 24: The water is out from the bottom of the new shaft, and to-day we shall start driving towards the sump. The old mine was not so rich as the new one, and the lode is broken down at the 70. At the No. 1 trial the ore part is getting wider, and there are stronger patches of copper and blende. At the trial on the mountain there is a very strong gossan, and the lode looks very kindly.

CLEMENTINA.—J. Roberts, W. Sandoe, June 23: We have nothing special to report here with regard to our operations during the past month. The stopes and rise in the 34 have been yielding from 12 to 15 cwt. of lead per fathom, and so has the sump in the 15. We have about 5 or 6 fms. more to communicate these points, which, when done, will thoroughly ventilate the places, and enable us to raise the water to a much cheaper rate. Since the time we have re-attached the pump at the roadside shaft, and the water is forking nicely; and when the place is dry we shall resume working the stope in the bottom. We are pushing on the dressing, and purpose sending out samples for 10 tons at the end of this week or the beginning of next.

COMBAMARTIN.—J. Harris, J. Comer, June 24: We have cut through the lode in the 17 south-east, and find it from 4 to 5 ft. wide. There are two veins of strong sulphur mudiic about 6 in. and 3 in. wide; the latter is on the footwall of the lode; the larger vein is spotted with lead and blende, and the lode shows these minerals with white quartz more or less throughout its full width, and we think it is undergoing a favourable change. The lode in the 17 north-west has also been cut through, and is fully 5 ft. wide, with a leader of about 1 ft. wide riding on the hard part of the lode, carrying small seams of lead and blende, and we are also finding small patches of blende and lead in the hard part. The lode in this end is also looking more encouraging for an improvement. In the winze sinking below the adit level we have no change to report in the appearance of the lode since our last, but the ground is favourable for sinking.

CWY PRYF.—Abraham Francis, June 23: The incline rise over the deep adit is producing 15 cwt. of silver-lead ore per fathom. The stope on south lode west of rise, over Midway level, is worth 15 cwt. of ore per fathom. The stope west of ditto, on main lode, is producing 12 cwt. of ore per fathom. The stopes east and west of inclined rise, over Midway, on main lode, have improved, and are worth 30 cwt. of rich ore per fathom. The stopes east and west of ditto, in bottom of the No. 2 adit, are worth 22 cwt. per fathom of good ore. The stope over No. 2 adit is worth 1 ton of ore per fathom. The 30 tons of ore tendered for on the 22nd inst. was purchased by Messrs. Weston, Son, and Co., Bristol, at 104. 3s. per ton.

CWYSTWIT.—June 23: The 15, to drive east of Pugh's cross-cut, on the new lode by rock drill; lode 2 ft. wide, worth 5 cwt. of lead and 1½ ton of blende per fathom; the ground in the end is now more favourable for driving, and we are making better progress than formerly. The 15, driving west of Pugh's cross-cut, on the new lode, is 2 ft. wide, and will produce 12 cwt. of lead and about the same quantity of blende per fathom, and looks promising to further improve. Gill's lower level, driving east of No. 1 winze, on the new lode, is producing saving work for lead and blende; we have taken two men from this level, as we cannot expect from the appearance of the lode above to have much more productive ground before us. The 12, driving east of cross-cut, on the new lode, is suspended for the present. The winze sinking below Gill's lower level, on the new lode, is all the width of the winze, and is producing about 1 ton of lead and blende per fathom; total, 13½ fms. Winze No. 1 sinking below Gill's lower level, on the new lode; lode 3 ft. wide, worth 1½ ton of lead ore per fathom, for the length of the winze, 9 ft. The rise over the 15, west of Pugh's cross-cut, on the new lode, is now up about 10 fms. from the bottom of the 15, and we propose starting to drive in the coming week; lode 2 ft. wide, worth 15 cwt. of lead ore per fathom. Pitch over Level Fawr, east of Level Fawr cross-cut, on the copper lode; lode 6 ft. wide, worth 15 cwt. of lead ore per fathom. Pitch under Kingside adit level, east of Kingside shaft, on Kingside lode and branches; the north branches are producing 12 cwt. of lead ore per cubic fathom. The pitch in the back of Kingside adit level, east of Kingside shaft, on Kingside lode and branches; lode 5 ft. wide, producing 10 cwt. of lead ore per fathom. Pitch over Gill's upper level, west of Gill's cross-cut, on the Comet lode; lode will produce about 10 cwt. of lead and 2 tons of blende per fathom. Pitch over Level Fawr, on Kingside lode and branches, is suspended.

DERSBY CONSOLS.—J. Roberts, W. Sandoe, June 23: We are getting on very fairly with the clearing up of the shaft in the open-cut on the Colliers' lode. The bottom appears to be getting near the rock, and by next week we are expected to be able to report something good. The Owen's lode is much the same as we reported last week. There seems to be a nice little change for the better on the Gorse heading; there is much more of the lodestuff in the end, and nice stones of lead. On the Red lode there is no change as yet.

DERSBY MOUNTAIN.—J. Roberts, W. Sandoe, June 23: During the past month we have removed the old engine and fixed the new, which works admirably, and we are quite sure that the difference between it and the old in the consumption of coals will soon pay back the outlay. We have put in a new bob in the top of the Gorse shaft, in place of the sheave and chain, reducing considerably the friction in working, and reducing correspondingly the steam-power required. We have also raised the top of the shaft, in order to make tip room for the "deads," and have made arrangements to land the orestuff at No. 4 adit, and being it direct to the dressing-floors by tramroad, thus doing away with the cost of relling and carting. We have also brought up a large conduit to the mouth of No. 4, so as to give room to any excess of water that may be

caused by flooding with rain, and which had formerly under such circumstances gone down to the bottom of the mine, causing expense and hindrance. We have also had to re-lay the tramroad from the Gorse shaft to the dressing-floors, which will be quite completed to-day, and to-morrow we shall start winding and working altogether on a better system. We have not yet completed a reservoir near the dressing-floors, which we are making to utilise a good deal of water that was running waste. We have resumed driving the 15 towards No. 5 sump; the ground at present is very favourable, and if it continues so we shall drive it in three months. In No. 5 stope, in the roof, we have a large head of leadstuffs, the most part cutting through the lode here to test its value going upwards No. 4, although it is not a rich lode, yet we believe that when opened on, having the advantage of breaking a large quantity of stuff, it will pay very well.

DEVON COPPER AND BLENDE.—Wm. Skewis, June 24: Since the last report the clearing of the adit has been completed. The men are now stopping the back, from which they are breaking some good work for copper and blende. A good 40-inch engine has been purchased, and the engine-house set to rebuild. This is now being pressed forward with all speed, and is to be ready to receive the engine in six weeks from next Monday. Between this and the starting of the engine all necessary arrangements will be made for the dropping and fixing of the pitwork at the shaft.

DENBIGHSHIRE CONSOLIDATED.—A. Francis, R. Prince: There are indications in the driving of the 68 that the lode we are in search of is close at hand. No. 1 stope continues to yield splendid ore both grey and blue. In addition to stopping it away we are opening fresh ground which will pay well for working. We have also splendid ore in the bottom of the 112 east; we have put six men to sink on its course, and we expect to be able to send you a very favourable report of this operation. We have six men obtaining very good ore in the back of the 112 west. Our other tributers are doing well, and we shall send off to-morrow another parcel of lead—say 10 tons.

DERWENT.—John Morphet, June 22: The list of bargains let here on Saturday is herewith sent.—Jeffries Shaft, Middle Vein: The 95 fm. level east still produces 24 cwt. ore per fm. for full width, 9 ft. No. 1 stope in the back is 7 ft. wide, and for this width is worth 20 cwt. ore per fm. No. 2 stope yields 11 cwt. width of vein 4 ft. Two sets of men are working the flats in both places; the yield is 18 cwt. ore per cubic fm. On the same vein, over the 93 fm. level, west of shaft, No. 1 stope yields 14 cwt. ore per fm.; No. 2 stope, both 4 ft. wide, and the flats are yielding 17 cwt. ore per cubic fm.—Sun Vein: The 70 east on this vein is 2 feet wide, worth 16 cwt. ore.—Westgarth's Shaft, Middle Vein: Here we have nine bargains set on stopping under and over the 93 fm. level, east of shaft, whose respective yield is 19, 15, 14, 20, 22, 16, 20, 15, and 15 cwt. ore per fm. The rise in the back of the cross-cut at the 95, on north vein, opposite Westgarth's shaft is now in the shale bed between the tuff adit and the great limestone, and is let at 44 per fm. We shall reach the latter all almost at once. The rise in the 74, 220 fms. west of shaft, is 3 ft. wide, and produces 26 cwt. ore per fm. for length of rise, 9 ft.

DEVON GREAT CONSOLS.—Isaac Richards, June 24: Wheel Josiah, New South Lode Shaft: In the 130 west the lode is 1½ ft. wide, composed of capel, quartz, and small quantities of both mudiic and copper ores. In the 115 west a cross-course has been met with which has displaced the lode probably a little in the south, and a cross-cut will be put out in that direction for proof of same.—Wheel Emma, Inclined Shaft: In Dave's cross-cut south at the 190 east the new lode referred to in last report has been cut through, proving it to be 6 ft. wide, and of a most promising character throughout the whole width, being composed of very fine capel, quartz, prlan, fluor, and copper ore; worth 2 tons, or 64, and 4 tons of mudiic per fathom. The men are now engaged driving west on the course thereof, where it is of the same general very promising character. In the 137 east, east of Friend's cross-cut, the lode is 3 ft. wide, composed of capel, quartz, peach, prlan, mudiic, and a small quantity of good quality copper ore. The rise in the back of the cross-cut at the 175, the lode proving it is composed of capel, quartz, peach, prlan, a little copper ore, and mudiic, worth 5 tons of the latter per fathom. In the 190 west the lode part being carried 1½ ft. wide, yields a little of both mudiic and copper ores. Hockaday's winze in the bottom of the 190 west, for some time suspended in consequence of water, has been resumed; the lode in which is 4 ft. wide, composed of capel, quartz, mudiic, and a little copper ore. In the 115 east the lode is 4 ft. wide, composed of quartz, peach, prlan, mudiic, and a small quantity of copper ore. In the 100 east the lode is 4 ft. wide, composed of capel, quartz, peach, prlan, and small quantities of mudiic and copper ore.—Railway Shaft: At the 190 the north part of the lode has been intersected and cut through, proving 3 ft. wide, and of a very fine appearance, being composed of capel, quartz, peach, prlan, and copper ore, worth 3 tons, or 96, and 4 tons of mudiic per fathom, and driving on its course eastward will at once be commenced. In Floyd's cross-cut south at the 175 west the ground continues favourable for progress, and congenial for mineral. In Cheynoweth's cross-cut south at the 160 west the ground is favourable for progress, and highly mineralised. Fox's winze in the bottom of the 160 west has been communicated with Marshall's rise in the back of the 175, the lode proving at point of communication worth 4 tons of copper ore and 3 tons of mudiic per fathom. At Watson's the repairs of the shaft are nearly completed, and the hauling machine, pulley-stand, &c., are being repaired, and will be ready for hauling in the course of a few days.

DEVONSHIRE SILVER-LEAD.—Wm. Richards, June 23: There is no alteration in our stopes since last report, the men are making good progress in the 24, we have finished repairing the shaft, &c., and shall push on with dressing the ore for market as soon as we have completed some slight alterations in the dressing-floors. I have to-day sent forward a sample of the ore, and hope it may reach you in time for the meeting.

EAST DEVON CONSOLS.—J. Browning, June 22: I have no material alteration to report since my last in the driving of the adit going west; we have commenced cross-cutting south, and find the ground good, strongly indicating another lode not far distant. The whole of the ground in this sett is highly mineralised, and in the district of rich and valuable mines.

EAST LONGSTONE.—J. James, June 24: The ground is much harder in the end. We are passing through a hard capel lode, containing sulphurous mudiic, the angle of which has no doubt thrown the lode back. We hope soon after getting through this capel to find the main lode.

EAST ROMAN GRAVELS.—Arthur Waters, June 24: The engine-shaft below the 97 makes fair progress, and the rock looks like that in the highly productive sections of the adjoining mine. The lode in the 97 south is about 3 ft. wide, and yielding good stones of lead ore. The 86 south is in a very nice looking lode, worth 1½ to 2 tons of soft rich lead ore per fm. and looks like improving shortly. The pitch in this level, near the shaft, is worth ½ ton per fathom. The winze below the 70 is opening out a splendid lode of lead ore, worth 3 to 4 tons per fathom. This is the best bunch of ore I have ever seen in the mine, and I look upon it as a bunch lengthening and increasing in value as we go down. The pitches are yielding their usual quantities of lead ore. We have to-day sold 25 tons of lead ore for 241. 5s.

EAST VAN.—W. H. Williams, June 24: The trial cross-cut for the north lode is driven 10½ fms. We are daily having spots of copper and lead in the stuff, but I believe the best part of the lode is before us. I have let the cross-cut to six men, at 80s. per fathom.

EAST WHEEL BULLER.—W. Tregay, June 24: The No. 1 lode in the 40 east end produces silver gossan, and indications of the near approach of copper ore. The 40 cross-cut is being pushed on towards the other lodes with all speed; ground favourable for driving.

EAST WHEEL OREBOR.—G. Rowe, June 23: The mine is now in fork to the 60, and the engine and whin shafts clear of the old timber and rubbish. We are now preparing a new set of bearers and drawing-lift to drop to the bottom of the mine, or the 70, which I am informed is approaching the rich course of ore going down below the 60. The lode I find is worked very extensively, and large quantities of ore have been taken from the upper levels.

EAST WHEEL LOVELL.—Richard Quantrell, June 23: Sevorgau: The 11 is set to drive east, by six men, at 77 per fathom. The lode contains a little tin, and we expect an improvement in this end after we reach the cross-course.—Tregonbris: Set six men a bargain, at 164, to enlarge the middle shaft to the 22 fm. level, and have given them 10s. in 14 for any tinstuff they may save. We are clearing the 22 west towards this shaft, by six men and two boys, and have about 15 fms. more to reach it. We are anxious to effect a communication with this shaft, as it will thoroughly ventilate the mine, and enable us to sink it more easily. We have set pitches to six men, at 10s. from 10s. to 11s. in 14. We have six men and three boys sinking a winze below the adit level on a south lode, at 114 per fathom, the winze to be carried 9 ft. long. The lode is nearly 2 ft. wide, and we shall be able to give its value in our next report.

FORTESCUE (Stannagwyn).—J. H. James, H. Harris, June 24: Since our last report we have cleared out foundations for calciners. The stamps will be erected in a few days, and immediately we shall commence laying out ground for bidders and dressing-floors. The engine and boiler are all complete. The stopes produce the same quantity and quality of lodestuff as last reported.

GAWTON COPPER.—G. Rowe, June 19: The lode in the 105 east is going up in the back of the 117 east is carried 3 ft. wide, yielding 4 tons of sulphur and arsenical mudiic per fathom mixed with ore. The lode in the 105 east is showing a very kindly appearance, yielding 4 tons of arsenical mudiic and ore per fathom. The No. 1 stope in the bottom of the 105, west of cross-cut, is worth 10 tons of mudiic and ore per fathom. The No. 2 stope in the bottom of the same level is producing 12 tons of arsenical mudiic per fathom. The lode in the 95, west of the cross-cut, is yielding 4 tons of mudiic per fathom. The lode in the stope in the back of the 95 is yielding 12 tons of mudiic per fathom mixed with ore.

GLASGOW CARADON CONSOLS.—W. Taylor, W. J. Taylor, June 22: The sinking below the 102 is being pushed on, but the progress is slow until we have sunk and cut the necessary ground for bearers and cistern, and fixed the standing lift; we shall then put in the penthouse, and work all the time with a full pair of men. All this we are doing as fast as possible. The south lode, in the 102 east, has a kindly appearance, producing some good ore, worth about 52 per fathom. The 90 west, on the north lode, is worth 64 per fathom; the ground is still hard, but we hope it will change soon. The 90 east is producing good stones of ore, but not much to value. The rise on south lode is worth 122 per fathom, and we hope to hole this to a cross-cut from the 78 in a day or two, which will open out some more ore ground for stopping. In the 90 cross-cut south we have just cut a branch; we hope this will change the ground, and we shall soon cut the south lode, which cannot be now more than 2 or 3 fathoms ahead. No other change of importance. The tribute pitches, on the whole, are looking a little better, and the stopes turning out about their usual quantities of ore, varying in value from 104 to 184 per fathom.

GORSBDD AND MERILYN.—W. Edwards: We have now risen from the 70 to the 60 east and obtained splendid ore therefrom. The men will now continue the driving of the 70 east, which we expect will open out a very profitable section of ground. In the 50 west the ground looks very favourable; the tributers are doing better this month. We sold another parcel of lead ore yesterday—10 tons, at 94. 15s. per ton.

GREAT DYLIFFE.—R. Dean, June 16: Llechwedd'du: The engine-shaft is driven 5 fms. 2 ft. below the 105. We are unable to resume sinking at present owing to the bottom of the mine becoming flooded during the late scarcity of water for pumping. The 125, driving west of Bradford shaft, has been carried 4 fms.; this level is also under water at present. The stope and 70s. per ton of 95, west of Bradford shaft, by four men, at 20s. per fathom. The 122, driving east of 95, west of Bradford shaft, by four men, at 25s. per fathom and 40s. per ton of ore; worth about 12 cwt. per fathom. The stope (No. 2) in back of adit level, west of cross-cut, by four men, at 40s. per fathom, and 40s. per ton of ore; worth about 9 cwt. per fathom; we expect both these stopes in better ore shortly. The stope (No. 3) in back of adit level, west of cross-cut, by two men, at 55s. per fathom.—Tributers: Llechwedd'du: We have eight tribute pitches on this lode, set to 25 men, at 100s. per ton of ore.

lowering fast progress draining the water in Mackay's engine-shaft; the lift is now down 7 fms below the 30. The rods, ladlers, drillings, &c., are completed to the 20. The 30 will be drained this week; at this level we shall fix our plunger lift. After that it is completed a very short time will drain the water to the 50—the present bottom of this mine.

SOUTH WHEAL CREBOR.—J. Goldsworthy, June 24: There is no change to notice in the 16, driving north-east on the caunter, since last reported; the lode produces rich ore in sufficient quantities to save. The shaftmen are now dropping the sinking-lift, and we hope to get the work completed in a few days, when the sinking will be resumed. The prospects are all that can be desired for the future of the mine.

SOUTH WHEAL FRANCES.—A. T. James, June 17: At Pascoe's shaft the lode is 7 ft. wide, and is worth 50 $\frac{1}{2}$ per fathom for 12 ft. long. The 215 west is worth 15 $\frac{1}{2}$ per fathom, and the same level east is worth 20 $\frac{1}{2}$ per fathom. There is no change in the lode in the bottom of the mine since last reported. A winze in the bottom of the 205 west is worth 15 $\frac{1}{2}$ per fathom. The 205 west is worth 8 $\frac{1}{2}$ per fathom, and the 185 west and the 175 west are both producing low-quality tinstuff. The stopes are yielding about an average quantity of tin ore, and the same level east is worth 15 $\frac{1}{2}$ per fathom. We have arranged with Messrs. Schram and Co. to put four rock-drills to work shortly—two in the 185 west and two in the same level east. In extending this level east and west more rapidly we hope to intersect fresh runs of rich ground, which may enable us to increase our returns, and another important object is to drive the 185 west under the new engine-shaft, by boring machinery. This is desirable so as to bring down the pit-work in the latter shaft, and dispense with the flat-rods in Pascoe's shaft above this level.

TAMAR (Silver-Lead and Fluor-Spar).—R. Goldsworthy, June 24: Setting Report : To drive the 77 south, by four men, at 7 $\frac{1}{2}$ per fathom; the lode is 3 ft. wide, composed of capel, quartz, and fluor-spar, but not sufficient to value. To drive the 37 south, by four men, at 4 $\frac{1}{2}$ lbs. per fathom. We have intersected the slide, which is 5 ft. wide; the lode is shifted east about 2 ft., and as far as seen has no distinctive appearance; we hope to report more fully on this in our next. To drive the 151 south, by four men, at 7 $\frac{1}{2}$ per fathom; the lode is 6 in. wide, and from its promising appearance we look for an early improvement in the stope in the back of this level, by two men, at 2 $\frac{1}{2}$ lbs. per fathom, yielding 2 cwt. of silver-lead and 4 tons of fluor-spar per fathom. Two tribute pitches, by six men, at 9 $\frac{1}{2}$ per ton for silver-lead, 16 $\frac{1}{2}$ for best fluor-spar, and 8s. for seconds per ton.

TANKERVILLE.—Arthur Waters, June 24: The 220 west is opening out a strong sparry, grey lead, very wet, and at present worth 1 $\frac{1}{2}$ ton of lead ore per fathom. The 220 east is also opening out a strong sparry, grey lead, and is worth 1 $\frac{1}{2}$ ton of lead ore per fathom. The 220 east is into a sparry, grey lode, 3 ft. wide, worth 1 ton per fm. No. 1 stope, in this level, is worth 1 ton per fathom; No. 2, $\frac{3}{4}$ ton per fathom; No. 3 stope, 1 ton per fathom; and No. 4 stope is worth 1 $\frac{1}{2}$ ton per fathom. The 206, going north-east on Roberts' lode, is worth 1 $\frac{1}{2}$ ton per fathom. The winze in 206 west is worth 1 ton per fathom. The winze in the 206 east is also worth 1 ton per fathom. We have not yet intersected the south lode in the 185 west, but the department is just as for month past.

WEST ASSHETON.—John Gundry, June 24: In the rise in the new shaft was sunk last month 1 fm. 1 ft. 9 in.; our progress is slow owing to one or two break-ages; the lode is 1 ft. wide, and yields good stones of lead ore and blende, having a more promising appearance than at any point yet seen below the 70. The 70 west was driven 2 fms 5 ft. 5 in.; the lode is 1 ft. wide, and yields occasionally a little lead ore, with copper pyrites. The 60 west was extended in the lode 1 fm. 1 ft. the lode is all the width of the level (5 ft.), is very hard and strong, and yields sparingly some blende and lead ore. The driving of No. 4 cross cut in the 60 west, which has been suspended for a long time, is now resumed. A large air-gauge ventilation to the 40 has been started in the back of the 60 west, a little west of No. 2 cross-cut; it will come up a little in advance of the 40 end, and the work will be completed, we expect, in three to four months. The 40 west was driven 3 fms. 11 in.; the lode is 2 to 2 $\frac{1}{2}$ ft. wide, composed of barytes, quartz, blende, and lead ore, and is more promising than for some time past. No. 2 stope in back of the 40 west yields 1 $\frac{1}{2}$ ton of lead ore per fm. No. 5 stope in back of the same level, yields 1 $\frac{1}{2}$ ton per fm. The 20, west of Gundry's rise, yields sparingly some blende and lead ore. The 20, east of Gundry's rise, is rich in lead ore, and copper pyrites occasionally. The men have been removed to the 60, rising to the present. A new tribute pitch has been set in the back of the 40, west of No. 4 stope, to two men, at 7 $\frac{1}{2}$ lbs. per ton of lead ore. There are three tribute pits working in the back of the 60, by six men, at an average tribute of 6 $\frac{1}{2}$ lbs. 8d. per ton of lead ore, included in the cost of stuff to shaft. The new winding engine is working very satisfactorily; the dressing and other work is proceeding regularly.

WEST CARADOX.—N. Richards, June 24: Gilpin's lode, in the adit level, west of the cross-course, is producing some rich ore, but not sufficient to value. The stope in the back of the 27, on this lode, will yield from 1 $\frac{1}{2}$ to 2 tons of copper ore per fathom; the same lode in the bottom of this level will yield from 2 to 2 $\frac{1}{2}$ tons of ore per fathom. Vivian's North Lode, at the 50, west of Hallett's cross-course, is improved, and will now yield 1 $\frac{1}{2}$ ton of copper ore per fathom; the same lode in the 33, west of cross-course, will yield 3 tons of copper ore per fathom, and is a very pretty looking lode. The stope on the north part of Menade lode will yield 1 $\frac{1}{2}$ ton of good ore per fathom. Our prospects have never been so good as at present.

WEST DEVON GREAT CONSOLS.—George Rowe, June 23: The new trial shaft, sinking on Edith's lode, is down 10 fms. 3 ft. below the surface, where rich quality ore is making its appearance, assays of which have been made by Mr. J. L. Jenkin, showing its value to be 9 $\frac{1}{2}$ produce per cent. of fine copper; going down on the north part of the lode by the side of the rich burnt up gossan. Altogether it is of a very beautiful appearance, and likely to strike into a large course of ore every foot we deepen the pit.

WEST PHOENIX.—John Holman, June 24: Sinking below the 80 the lode looks exceedingly well, and with the lead we find splendid stones of blende. The driving of the 80 east looks well this morning, and we are sending good stuff to the washing-floor from here. The prospects here are very good, and further improvements must result. In the driving of the 80 west the lode is of great strength, fully 6 ft. wide, and I believe that next week we shall be into a valuable run of ore here.—Ram Shaft: Very good progress here.—Surface: We are laying down rods from the shaft to the dressing-floors, and shall commence dressing the fine pile of stuff saved in a few days.

WEST KITTY.—W. Field, June 24: In the rise in the back of the 84, east of the shaft, the lode is 2 ft. wide, improving in appearance, worth 5 $\frac{1}{2}$ per fathom for tin. In the 72, east of shaft, the lode is 3 ft. wide, and worth 9 $\frac{1}{2}$ per fathom. In the 60, driving east of the rise, the lode is 3 ft. wide, worth 4 $\frac{1}{2}$ per fathom. We are opening up tin ground for stoping, and with the improved price for tin I think we shall shortly find it such as to give every satisfaction, and afford the realisation of some of the expectations which we have so long been entertaining.

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WEST VOR.—S. Harris, June 24: During the past week we have driven the west end of the new shaft, 2 ft. 3 in., and taken down the lode, which is 4 ft. wide, producing tin, copper, and very congenial in its character for the production of large quantities of tin.

WEST WHEAL TOLGUS.—June 25: Taylor's Shaft: The lode in the 155, west of shaft, is 3 ft. wide, and yielding 1 ton of copper ore per fathom. The lode in the 125 east, on the south part of the lode, is 4 ft. wide, yielding $\frac{1}{2}$ ton of copper ore per fathom. The stope in back of the 155, west of shaft, east of No. 3 winze, the lode is 2 $\frac{1}{2}$ ft. wide, yielding 2 tons of ore per fathom, worth 10 $\frac{1}{2}$ per fathom. In the stope in back of the 155, west of shaft, east of No. 3 winze, the lode is 2 $\frac{1}{2}$ ft. wide, yielding 2 tons of ore per fathom, worth 10 $\frac{1}{2}$ per fathom. In the stope in back of the 155, west of shaft, east of No. 2 winze, the lode is 3 ft. wide, yielding 1 $\frac{1}{2}$ ton of ore per fathom, worth 7 $\frac{1}{2}$ lbs. per fathom. In the stope in back of the 145, west of shaft, and west of No. 4 winze, the lode is 2 $\frac{1}{2}$ ft. wide, yielding 2 tons of ore per fathom, worth 10 $\frac{1}{2}$ per fathom. In the stope in back of the 145, west of shaft, and west of No. 4 winze, the lode is 4 ft. wide, yielding 2 $\frac{1}{2}$ tons of ore per fathom, worth 12 $\frac{1}{2}$ lbs. per fathom. In the stope in bottom of the 145, west of shaft, and east of No. 1 winze, the lode is 3 ft. wide, and yielding 3 $\frac{1}{2}$ tons of ore per fathom, worth 12 $\frac{1}{2}$ per fm. In the stope in bottom of the 145, west of shaft, and east of No. 1 winze, the lode is 3 ft. wide, yielding 3 $\frac{1}{2}$ tons of ore per fathom, worth 12 $\frac{1}{2}$ per fm. In the stope in bottom of the 145, west of shaft, and east of No. 1 winze, the lode is 3 ft. wide, yielding 3 $\frac{1}{2}$ tons of ore per fathom, worth 12 $\frac{1}{2}$ per fm. In the stope in bottom of the 145, west of shaft, and east of No. 1 winze, the lode is 3 ft. wide, yielding 3 $\frac{1}{2}$ tons of ore per fathom, worth 12 $\frac{1}{2}$ per fm. In the stope in bottom of the 145, west of shaft, and east of No. 1 winze, the lode is 3 ft. wide, yielding 3 $\frac{$

in bearers and clatern, and as soon as this work is accomplished they will commence fixing the new plunger lift, which will be done with all possible dispatch, so that the sinking of the engine-shaft can be resumed below the 60; the lode in the bottom of this shaft is about 5 ft. wide, composed of quartz, mudi, and saving work for copper and lead ore—a very promising lode. In the 60, east of the engine-shaft, the lode continues very large, yielding quartz, mudi, and 1 ton of yellow copper ore. In the 60, west of the engine-shaft, the lode is disordered by a horse of quartz, which I think will soon leave, when we shall have a productive lode, as I have known such changes to improve the lode, and likely to be so here. In the 50, east of engine-shaft, we are cross-cutting the lode in 5 ft., but in the south wall we expect to find the lode at this point fully 3 ft. wide. In the 40, east of engine-shaft, we cannot state the size of the lode. We are carrying it 4 ft. wide, composed of gossan, mudi, and quartz, and from a leader of black and yellow copper ore, which we are saving, and from the present appearance we expect improvement shortly.

WHEAL PEEVOR.—W. T. White, T. O. King, June 13: We are very pleased to say we have cut our south lode at the 80; have cut into 5 ft., and the north wall not yet reached. It is a very fine looking lode, and far more productive than when we first cut it at the 80. We brought up a sample from it, and it made a produce of 1 cwt. 2 qrs. 9 lbs. of tin to the ton of stuff, which we consider to be exceedingly good. Some fine stones of tin have also been broken, which are as good as have been produced from any other point in the lode, and we consider this the most important discovery that has been made in the mine for some time, inasmuch as it proves the lode is continuing rich in depth. We certainly think the 90 will be one of the most productive levels yet seen in the mine, and we firmly believe a still richer discovery will yet be made at the junction of the new lode with this, which must be about 3 or 4 fms. below this point.

WHEAL UNY.—Wm. Rich, Matthew Rogers, June 22: The lode in the 172 end, west of incline shaft, has a promising appearance, and worth 8½ per fathom. The 160 east, on the north part of the lode, is in easier ground; the end is worth 9½ per fathom. The rise in the back of this level is worth 8½ per fathom. The 160 west is also worth 8½ per fathom. The 150 cross-cut north is not yet fully through the lode; the end is yielding low quality tinstone. We hope soon to reach the true footwall of the lode and drain the mine in the bottom of the 150. The lode in this vein is not quite so good as it has been, owing to a patch of granite making in it, but this appears to be going out, and the lode is improving as we sink, now worth 15½ per fathom. We are continuing the cross-cut north in the 150, east of junction. We have suspended the cross-cut north in the 130 east till we have proved the lode in the bottom of the 120 west.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JUNE 25, 1880.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Pig, GMS, f.o.b., Clyde.	2 9 0	—	English, ingot, f.o.b.	86 0 0	85 0 0
" Scotch, all No. 1.	2 9 6	—	" bars	87 0 0	86 0 0
Bars, Welsh, f.o.b. Wales	5 0 0	5 0 0	" refined	89 0 0	88 0 0
" in London.	5 10 0	—	Australian	82 10 0	83 0 0
" Stafford.	7 0 0	7 5 0	Banca	(nom.)	—
" in Tyne of Tees	9 0 0	9 10 0	Straits	82 10 0	83 0 0
Swedish, London.	9 0 0	10 0 0			
Rails, Welsh, at works	5 0 0	5 5 0	COPPER.		
Sheets, Staff., in London	0 0 0	0 0 0	Tough cake and ingot.	63 0 0	64 0 0
Plates, ship, in London	7 10 0	8 0 0	Best selected	65 0 0	66 0 0
Hoops, Staff.	7 15 0	8 5 0	Sheets and sheathing	69 0 0	70 0 0
Nail rods, Staff., in Lon.	7 10 0	8 5 0	Flat Bottoms	72 0 0	73 0 0
			Wallaroo	72 0 0	73 0 0
STEEL.			Burra, or P.C.C.	70 0 0	—
English, spring	13 0 0	13 0 0	Other brands	68 0 0	67 0 0
cast	10 0 0	10 0 0	Chill bars, g.o.b.	60 0 0	60 10 0
Swedish, keg	15 0 0	—			
" tag, ham.	15 10 0	—	PHOSPHOR BRONZE.		
LEAD.			Alloys I., II., III., and IV.	£120 0 0	—
English, pig, common	15 10 0	—	" VI. and VII.	135 0 0	—
" L.B.	16 0 0	—	" XI., Spl. bearing metal	112 0 0	—
" W.B.	16 10 0	—	BRASS.		
" sheet and bar	17 10 0	—	Wire	63½ d.	—
" pipe	17 0 0	—	Tubes	9½ d.	—
" red	19 0 0	—	Sheets	9½ d.	—
" white	22 0 0	24 0 0	Yel. met. sheath. & sheets	5½ d.	—
" patent shot	20 0 0	—			
Spanish	15 10 0	—	TIN-PLATES.		
NICKEL.			Charcoal, 1st quality	1 2 0	1 4 0
Metal, per cwt.	15 0 0	16 0 0	" 2nd quality	0 18 0	1 0 0
Ore, 10 per cent. per ton	20 0 0	25 0 0	Coke, 1st quality	0 17 0	0 18 0
QUICKSILVER.			" 2nd quality	0 15 0	0 16 0
Flasks, 75 lbs., war. (nom.)	8 15 0	—	Black, Staff. or Glia.	15 0 0	—
SILICA.			at Liverpool	12 0 0	—
Silesian	17 15 0	18 0 0	Black Taggers, 450 of	30 0 0	—
English, Swansea	19 0 0	—	14 x 10	30 0 0	—
sheet zinc	23 0 0	—			

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than 10 quoted above, and add 6s. for each X. Terms—plates 2s. per box below tin-plates of similar brands.

REMARKS.—Our markets this week have been in a very excited and unsettled condition, and at one time it looked as if they would completely break down, and lose all the advantage which they had previously obtained. It is no easy task to give support to overstocked markets, especially when ordinary business is dull, and speculation is confined to limited circles. Hence it appears doubtful whether the rise will be more than temporarily maintained, for there seems to be nothing except the comparatively low range of prices and cheap money to justify any rise yet awhile. Trade reports show that heavy supplies have of late been sent out to the chief markets, some of which are said to be greatly overstocked, particularly those of America; and according to advices from other parts there appears to be no scarcity elsewhere. Since the rise commenced many of the markets have only responded to a very slight extent, and the orders which have been executed have been of a very unimportant character. As regards the home trade, reference need only be made to the reports which daily come to hand from the several producing parts of the country, and it will be then seen that many of the mills and works are turning out very little, and complaints are almost unanimous from all districts with regard to the extremely limited number of new orders which are now being received. The present state of our markets may thus be summed up—Stocks excessive, demand limited, prices moderate, partial speculation, supplies maintained, prospects fairly satisfactory. If circumstances should not change, there is no reason for any material alteration in prices, and it would be better that our markets were not unduly interfered with, but left alone for a time, that they may rise or fall upon their own merits. It is pretty certain that were our markets divested of their speculative element prices would not be prematurely affected; and as all sound trading is based upon supply and demand, it is probable that prices would recede before another advance was attempted. The enhanced prices ruling at the latter part of last year caused accumulations which up to the present time have been considerably increasing both in iron and copper; and to ensure a safe position for these metals it is absolutely necessary that a very large reduction in stocks should be made.

The question then is—How can this be done? Apparently by two ways only—increased consumption or lessened production. With regard to consumption, is the trade justified in looking forward to any great increase. Are we on the eve of a revival and general prosperity, and is it likely that the necessary stimulus will be effected by speculation, because if so it would be well to encourage speculation at the present time in order to hasten the revival; but while difficulties beset the course it is certainly advisable not to be too sanguine, or to take a more favourable view than the immediate future justifies. There is the other side of the question to be considered—Will consumption be increased, or are stocks likely to get reduced by higher prices being demanded? Such has seldom been the case, and former experiences prove to the contrary. Following out this course, the tendency of prices should be downward, and unless lower prices are

accepted it is questionable whether consumers will be induced to increase their purchases. Daily requirements must be secured; but more than this, it is exceedingly doubtful whether anything will be bought, and consumers are in a great measure persuaded to abide their time by reason of producers continuing to send forward excessive supplies, and many will argue that they are warranted in coming to the conclusion; for if present prices form no check to production higher rates might, and probably would, still further increase the production. Admitting, therefore, the principle of supply regulating the demand upon which all sound commercial trading is based, it would appear unadvisable to advance the markets just at present, and lower prices might be found advantageous in some instance in order to lessen production.

COPPER.—This metal having almost daily improved in value throughout the whole of last week continued to display vitality until Monday afternoon last, when 62½ 10s. was quoted for Chili bars, or an advance of 6½ per ton above the price realised on the previous Monday. Consequently upon this cause alone it was not surprising that a reaction should have occurred, and on Tuesday business was reported from 60½ down to 58½, when speculative buyers again came to the rescue, and prevented any further fall from being made, and sellers taking advantage of the improved demand sold at 59½ to 59½ 15s., while yesterday business was transacted from 59½ 15s. to 60½ 10s., closing at the higher figure, and to-day the market has been fairly steady, and closes at 60½ to 60½ 10s. There is a manifest desire on the part of operators for the rise to force up prices, but in the opinion of many the movement is premature, as *bona fide* trade is decidedly dull, and stocks are heavy. Were the statistics of copper satisfactory, then in coming to the conclusion; but with about the heaviest stock on record, it is evident production must be curtailed so as to ensure any material advance being permanently maintained. Higher prices are scarcely likely to stimulate consumption, whereas reduced rates might check production, and, therefore, it would appear that for a time it would be more advantageous to submit to a lower range of prices, by which means the overstocked markets would be sooner relieved, than for a while to be obtaining higher prices and having afterwards to suffer perhaps from a very keen and prolonged reaction. The advices from India are rather more favourable, and little better prices have been realised for many factories, 68½ being obtainable for copper 4 by 4 sheets, and 55½ d. for yellow metal 4 by 4 braziers, at which price business has been transacted.

IRON.—This market continues quiet, only a very small amount of *bona fide* business being transacted, but there has been considerable speculation in warrants of late, and higher prices have been realised; but dealers do not appear very sanguine of legitimate business improving to any material extent yet awhile, as the rise in pigs seems to have been brought about chiefly on account of the covering of "bear" sales, and not from any particular increase in the consumption or shipping demand. The manufactured trade is exceptionally dull, and the various works throughout the whole country are reported to be indifferently employed. Fresh orders are coming in very slowly, and makers at times appear more inclined to make concessions rather than to have their pigs pass by them, but in their quotations they keep tolerably firm. The heavy stock of Glasgow pigs, as well as those in other districts, prove very burdensome to the markets, and by the present rate of production there seems little probability of any sensible reduction being effected, as the present legitimate demand is evidently not sufficient to absorb the iron as rapidly as makers produce it. On reference to statistics it will be found that the visible stock in Glasgow alone is now nearly double to what it was at the corresponding period of last year; and under these circumstances any material rise which may be temporarily effected, though speculation is not likely to be for long upheld, as it requires something of a more practical character than speculation to relieve the overstocked markets. The demand for America is still limited, nevertheless advices recently received from that country show that the trade out there is assuming a more settled appearance, and prices are less depressed than before.

Current transactions in Scotch pigs are reported nominally good, and No. 1 Glengarnock is quoted at 31½ 50, Coltness 32½, and Eglinton at 31½. A steady business has been carried on in scrap and old rails, and prices have varied very little. Reports from the Welsh districts show the trade to have undergone very little change, and it is feared that most of the orders in hand have been executed; nevertheless, at a few of the establishments business is said to be fairly brisk. Clearances continue to be effected chiefly to America, but during last week were not on so extensive a scale. A moderate demand exists for railway iron, and bars are in fair request. The clearances from Cardiff last month are estimated at 17,280 tons, from Newport 18,352 tons, and Swansea 12,529 tons. From Sheffield the advices are unsatisfactory, for they show that the trade continues to decline, and that almost weekly the mills are discharging more men, on account of the limited number of fresh orders which come to hand. Some makers hold orders but are unable to proceed in the execution of them through want of the specifications, by which it may be concluded that, for the most part, such orders have been given out by speculators who are now unable to find consumers ready to purchase. A marked falling off is perceptible in the demand for pig, and prices display a drooping tendency, prices varying for No. 3 from 45s. 6d. to 53s., being more than 15s. per ton below the figures realised two months ago. Consumers are said to have heavy stocks on hand, and hence prices are very sparingly. More firmness has characterised the course of the Birmingham markets, and a feeling appears to prevail that prices have reached their minimum, but no particular change is expected to be made in quotations until after the Quarterly Meeting. Transactions have been confined chiefly to unmarked descriptions of finished iron and the commoner qualities of pig.

A rather better tone marked the course of the Wolverhampton market, and rather more business is said to have been transacted. Crude iron has been more ready of sale, and prices have been a shade firmer, but many consumers held off for higher prices. On the Northampton pig, and a portion of one of the week's hematites are procurable from 70s. to 75s. There has been slightly more doing in finished iron, at former rates. The Cleveland market is said to have displayed at times a much firmer tone, and an advance has been effected in prices, and many buyers who were previously holding back have lately purchased more freely, but it is to be feared that the improved demand is brought about more by speculation than increased consumption, for statistics show the public stock to have increased by about 430 tons, bringing the total stock in warrant stores to 38,525 tons. The quotation for No. 3 is 32s. 3d. to 32s. No. 4 forge, 32s. 3d. to 32s. 6d., and warrants 32s. 6d. to 32s. 9d. for No. 3. Shipments during the past fortnight have not maintained their average, being about 17,000 tons per week, or an average decrease of about 3000 tons per week for the last two or three months. Shipments for the time being are said to have ceased to America, but slightly better deliveries have been made to Scotland, the Baltic, and German ports. The advance in prices is not expected to be maintained for long, as consumers and shippers do not respond more than immediate requirements oblige them to. The manufactured trade is less brisk, and a portion of one of the week's orders is reported to have been stopped. There is a very limited demand for rails and bars, but a fair enquiry exists for ship plates at about 6½ 7s. 6d. to 6½ 10s. Bars are quoted at 5½ 5s. to 5½ 7s. 6d. Angles at 6½ 7s. 6d., and puddled bars at 3½ 7s. 6d. net. The iron shipbuilding trade is reported brisk.

On Monday the Glasgow warrant market opened at 48s. 6d., and rapidly advanced to 49s. 11d., receding again to 49s. 3d. On Tuesday an extensive business was transacted at declining prices, 48s. being accepted at the close, and on Wednesday transactions were carried through from 47s. 7½d. to 47s. 9d. Yesterday, however, a better tone prevailed, and prices gradually strengthened to 48s. 9d., and to-day the market has been fairly steady at about 48s. 10½d. The foreign and coastwise shipments last week were 9507 tons, against 7278 tons for the same period of last year, and the total from Christmas to date this year have been 380,240 tons, against 245,110 tons in 1879. There has been one more furnace re-lit, which again brings the total in blast to 116. The imports of Middlesbrough pigs into Grangemouth last week were 4340 tons, against 6784 tons for the week ending June 20, 1879. The stock in public stores on the 19th inst. was 446,370 tons, being an increase for the week of 1298 tons.

TIN.—This market opened this week at 82½ 10s. for foreign, and advanced on Monday to 84½ 10s., from which point the market rapidly gave way, and on Wednesday as low as 80½ was accepted. Yesterday more disposition was manifested to enter into fresh engagements, and prices were advanced to 83½, and to-day the market has fluctuated from about 84½ to 83½. The particularly favourable statistical position of this metal causes many persons to anticipate a still further improvement in prices, and investors and speculators are constantly effecting contracts, and a moderate *bona fide* demand exists. These circumstances are taken as evidence of a decided revival, and the improvement seems so well maintained that every confidence appears to be felt that the recovery will be permanent. English has been advanced to 88½.

LEAD.—During the past week prices have continued to strengthen for both pig and sheet lead, quotations now being fully 10s. per ton above what they were a week ago.

STEEL.—There is but little attention being given to this market, and prices remain nominally unaltered.

TIN-PLATES. in moderate request at previous rates.

SPELTER.—This article was pressed for sale by the English makers, and as low as 16½ 10s. was accepted, but in consequence of very extensive transactions makers hold now for 18½ to 18½ 10s. free Birmingham, whilst the foreign makers have fixed their price at 18½ London, or 18½ 12s. 6d. free Birmingham.

QUICKSILVER.—The week opened with an active demand, resulting in large sales at higher prices, up to 6½ 17s. 6d. having been paid from second-hand. At the close, however, quietness has supervened, and there are few orders on the market. The importers' price is 6½ 15s.

MESSRS. PICKLEY AND ABELL.—Gold continues to flow into the Bank, for, with the exception of the withdrawal of 30,000*l.* sovereigns, for Monte Video, there is no demand for export. The Poona has brought 219,000*l.* from Australia and China, and from this and previous arrivals the Bank has received 247,000*l.* The P. and O. steamer has taken 20,000*l.* in coin to India and Australia. SILVER has again improved in value, partly owing to the receipt of higher exchanges from India, and partly to the limited amounts coming on the market. Transactions have taken place at 52½ d. per oz., and to-day the quotation is 52½ d. per oz. The receipts of the week comprise 14,300*l.* from River Plate, 2050*l.* from Australia, and 10,000*l.* from New York; total, 26,350*l.* The Don has taken 2550*l.* to the West Indies, and the P. and O. steamer 60,500*l.* to Bombay.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. W. ANNOT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

GAS SHARES.—The principal business in these shares, according to this evening's report of Mr. W. L. WEBB, of the Stock Exchange and Finch-lane, has been in Bombay, 5½ to 5½; Commercial, 183 ex. new; Continental, 21; ditto, 7 per cent. 25½ to 25½; ditto, New, 13½ to 13½; Gas, A, 12½ to 13½; 5th issue, 17½ to 17½; 10 per cent. pref., C, 21½ to 21½; max. H, 13½ to 13½; 4 per cent. Debentures, 103 to 103½; Imperial Continental, 180½ to 180½; 15 to 15½; Rio de Janeiro, 27½ to 27½; P&A, 6½ to 6½; South

Metropolitan, B, 182½ to 184. Gas stocks steady. For closing prices see list on last page of Journal.

INSURANCE SHARES. have, according to this evening's report of Mr. W. L. WEBB, of the Stock Exchange and Finch-lane, been dealt in as follows:—Alliance, British and Foreign, 33½; ditto Marine, 25½ to 27; Commercial Union, 19½; Eagle, 5½ to 5½; Merchant Marine, 1; Marine, 8½; 10½; Indemnity, 102½ to 103; Ocean, 7; Royal, 26; Rock, 8½; Thames Marine, 10½; Universal Marine, 12½. Insurance shares firm. For closing prices see list on last page of Journal.

The MINING SHARE MARKET was very brisk during the early part of the week, and a rise took place in several prominent tin mines. This, however, was not maintained, and as metals dropped share transactions became less frequent, though on the whole the market leaves off firmer, especially for tin mines.

TIN.—The smelters further advanced the standards for tin ore on Monday 2½ per ton, making a rise of 10½ per ton since the 14th. This, early in the week, caused a good demand for several shares, and there was an active business, which, however, was soon damped for a day or two by a fall of tin in the London market.

Carn Brea are now quoted 72½ to 77½. Dolcoath, 54 to 56. Wheal Pevor have fluctuated a good deal; they opened at 30, rose to 31, 34 on Thursday, then declined to 29, 31, and leave off 30, 32. A circular has been sent to the shareholders informing them that the south lode has been cut at the 90, and far more productive than when it was cut at the 80. The agents think, therefore, this will be the most productive level yet seen in the mine. East Pool, 33 to 35; Cook's Kitchen, 8 to 8½; East Lovell, 1 to 1½; South Condurrow, 10 to 10½; South Frances, 15½ to 16½; Tincroft, 17½ to 18½; West Bassett, 17½ to 18½; West Frances, 13 to 15; West Pevor, 7 to 7½; Wheal Agar, 6 to 6½; Wheal Grenville, 9 to 9½; Wheal Kitty (St. Agnes), 4½ to 5½; Wheal Uny, 3½ to 4; New Kitty, 20s. to 21s.; West Kitty, 1½ to 2. Polrose, 1½ to 2; driving will be commenced this week towards the Margaret lode. Phoenix, 4 to 4½; New Pevor, 2½ to 3.

COPPER advanced during the week to 62½, but soon declined again, owing to speculations in the metal market. Still a fair business has been transacted in copper shares. Devon Great Consols, 11 to 12; the mine is looking well. Wheal Crebors have been very largely dealt in, and notwithstanding the falling off in the mine, shares have advanced, and leave off 4½ to 5½. Bedford United, 10s. to 15s.; Devon Great United, 1½ to 1½; West Devon Consols, 2½ to 3; East Caradon, 1½ to 2; East Crebors, 12s. 6d. to 17s. 6d.; Gunnislake (Clitters), 3½ to 3½; Hingston Down, 15s. to 17s. 6d.; Killifish, 7s. 6d. to 12s. 6d.; Mellanear, 5 to 5½; Marke Valley, 2½ to 3; Morfa Du, 20s. to 22s. 6d. Parys Corporation, 25s. to 27s.; this mine has sampled 330 tons of copper ore. Prince of Wales, 14s. to 16s.; West Seton, 20 to 22½; West Tolgus, 55 to 60; West Gunnislake (Clitters), 1 to 1½; West Caradon, 2½ to 3; Mona, 14½ to 15½.

LEAD is firmer, but at present there is not much reaction in lead shares, the quotations of which, for the most part, continue nominal. Van, 18½ to 19½; the sale of lead for the month (200 tons) realised 223½ 5s., and 150 tons of blende 353½ 15s.; the mine is improving in the bottom. Roman Gravels, 10½ to 10½. Tankerville, 3½ to 4½; the 220 west is opening out a strong, sparry, ore lode, very wet, and at present worth 1½ ton of lead ore per fathom. The same level east is worth 1 ton per fathom. Aberllyn, 1 to 1½. East Roman Gravels, 15s. to 17s. 6d.; the winze below the 70 is opening out a splendid bunch of lead ore, worth 3 to 4 tons per fathom. The sale of lead for the month realised 241½ 5s. Pandora, ¾ to 1; the lode at the shaft continues to look well, and adds, the agent considers, greatly to the value of the mine. South Darren, 2½ to 3; the lode at Bishop's shaft is improving in depth, now worth 30½ per fathom for lead and copper.

Derwent, 2 to 2½; the 95 east, on middle vein, at Jefferies, is worth 24 cwt. per fathom; six stopes in the back 5 tons 8 cwt. in the aggregate. The Sun vein continues worth 16 cwt.; nine stopes in the 93 yield in the aggregate 7 tons 16 cwt. per fathom. In the rise above the 93 they are close in the great limestone, and the rise in the other new lode in the 74 is worth 26 cwt., and is now very near the little limestone, where a great improvement is expected. North D'Eresby, ½ to 1½; the agent reports the lode in the winze to be worth quite as much for lead and blende as at any previous time. East Van, 2 to 2½; Glenroy, 15s. to 17s. 6d.; Great Laxey, 18 to 19; Herodsfoot, 3½ to 3½; Leadhills, 2½ to 3½; Caron, 1½ to 2; Cromwood, 1 to 1½; Hartington Moor, 1 to 1½; Mawston, 1½ to 2. Frogoch, 3 to 4; the mine has sampled 150 tons of lead ore and 125 tons of blende. Grogwin, 2½ to 3; the sampling here is 100 tons of lead. Red Rock, 1½ to 2; sold 30 tons of lead at 9½ per ton. West Penn Valley, 3 to 4; New Wye Valley, 1½ to 1½; Ystwith, 1 to 1½; Pennant, 3 to 3½; Pen-y-Oscedd, 1 to 1½; West Holway, 27s. 6d. to 32s. 6d.; Gwyn-y-Mynydd, 4½ to 5.

FOREIGN MINES.—Almaden and Tiro, 7s. 6d. to 12s. 6d.; Birdseye, ½ to 1½; Cape Copper, 38 to 40; Colorado, 1½ to 1½; Consolidated, 10s. to 15s.; Copiapo, 9½ to 10; Don Pedro, 7s. 6d. to 12s. 6d.; Eberhardt and Aurora, 2½ to 3½; Flagstaff, 7s. 6d. to 12s. 6d.; Frontino and Bolivia, 3 to 3½; Glenrock, 1½ to 1½; Anglo-Espana Sulphur, 2½ to 2½; New Quebrada, 4 to 4½; Nonvau Monde, 12s. 6d. to 15s.; Panulicillo, 4 to 4½; Port Phillip, 10s. to 12s. 6d.; Richmond, 15½ to 15½; Ruby, 8 to 8½; St. John del Rey, 230 to 240; South Indian Gold, 1½ to 1½; Placerilla, 2½ to 2½; Blue Tent, 2 to 2½; Hultafall, 2 to 2½.

The Market for Mine Shares on the Stock Exchange has fully maintained the great improvement noted in last report. The upward movement in prices continued on Saturday and at the beginning of the present week, and the high prices then proved too tempting for many holders, and some rather heavy sales took place, the natural consequence being that prices were forced down. On Thursday they fully recovered again, but to-day the market closes slightly weaker—perhaps in consequence of the approaching settlement. With regard to prices, however, they are almost without exception higher than at date of last report, notwithstanding the decline upon yesterday's prices. It is considered that the class of mines likely next to attract attention are the Diamond Mines of South Africa, and there is little doubt that one or two good Kimberley mines offered at a price that would show that the vendor really intended the capitalists to obtain a return for his money the necessary working capital could be immediately raised, but capitalists are tired of the "de'il catch the hindmost principle" which has been displayed by too many vendors of late. Authenticated reports of mines of this class at present in the market will receive every attention, and the publication of abstracts of them may be of equal advantage to vendors and capitalists.

The Devala-Moyar Gold Mining Company, with a capital of 200,000*l.* in shares of 1*l.* each, has been formed to purchase for 132,000*l.* freehold and leasehold estates (2000 acres) belonging to the Moyar Coffee Company in the South-east Wynaad. This is the company which it was intended to refer to a few weeks since (but the name was stupidly blundered in printing) as being that indicated in the South Indian Observer of May 15:—"We learn that Mr. Brough Smyth, whose abilities in the matter of gold seeking are well known in the colonies, and have been but lately begun to be appreciated here, has accepted the offer of a London company to develop the gold mines of South-East Wynaad, on terms most satisfactory to himself. The Government of India has lost a good chance. Whether they are wise or otherwise in leaving to private enterprise an undertaking of such great significance to the Empire as the exploration of the modern Ophir we cannot say, but our Wynaad friends are much to be congratulated on the circumstance that Mr. Brough Smyth and Mr. Laing will remain in the district, and (it is hoped) can be consulted on all matters connected with the search for gold." It will be observed from the prospectus, which will be found in another column, that the necessity for the Moyar Coffee Company selling these properties arises from its being unable under its constitution to carry on mining operations. The present company will have the power of sub-letting, leasing, or selling portions of the properties for mining, and having regard to the large acreage of freehold land, and the limited area which at one time only worked, these powers may become a source of considerable profit to the company. The acreage under cultivation for coffee on these estates is—Strathgairn, 255 acres (also 25 acres of tea); Maryland, 225 acres; Harwood and Kintail, 200 acres; 681 acres of coffee and 25 acres of tea. During the last few years 80,000 cinchona trees have been planted, and 150,000 plants are now in the nurseries or have been put out. Pending the land under cultivation being required for mining purposes the cultivation of this produce can be carried on for the benefit of the company. Of the 200,000 shares nominal capital 61,795 are reserved as part payment to the vendors—the Moyar Coffee Company (Limited)—88,205 shares have been already applied for, allotted in full, at par, and the balance of 50,000 shares is now offered for subscription at par.

The New Flagstaff Consolidated Silver Mining Company, at the formation of which with a capital of 80,000*l.* in 1*l.* shares, reference

and Tuesday. Advice to hand yesterday state there is now a good supply of water in the pools, and ore dressing can at present go on uninterrupted. The new crushing and dressing mill was started on Tuesday, and will be operating entirely upon blende ore, of which there is considerably more than 1000 tons on hand, and if the showery weather continues there will soon be sufficient water-power to start the mill also. The mine is greatly blocked with cretaceous sand, which has accumulated during the week. The accounts about the mine continue to be satisfactory. A growth in 2½ to 3, 100 tons will be made on Tuesday. The new shaft is being rapidly sunk by six different pairs of men and good progress is making. The new water-wheel for this shaft will be ready by the time the sinking is completed, so that in a few months the development of the rich ore ground already discovered below the deep adit will com-

C O L O N I A L B A N K.		
Incorporated by Royal Charter, 1836.		
Subscribed Capital	£2,000,000	
Paid-up	600,000	
Reserve fund	95,000	

The Court of Directors of the COLONIAL BANK hereby give notice that in pursuance of the provisions of the Charter a HALF-YEARLY GENERAL MEETING of proprietors will be HELD at the Bank House, No. 12, Bishopsgate street Within, E.C., on THURSDAY, the 8th July, 1880, at Two o'clock precisely to receive the report of the proceedings of the Corporation.

The Transfer Books of the Corporation will be closed on the 21st June, and opened on the 7th July, 1880.

THE WESTERN MINING EXCHANGE, 14, OLD TOWN STREET, PLYMOUTH, publish monthly a valuable pamphlet, "80' AND REAP" Sent post free for 1½d. stamps. Full and reliable information given on all Mining Investments. Special information is given of Fortescue New Penrose, and Old Wheal Rose Mines—three of the best mineral investments for great profits.

By order of the Court of Directors,
JAMES CLARK, Secretary
13, Bishopsgate-street Within, E.C., 10th June, 1880.

THE NEW PENROSE TIN AND COPPER MINE COMPANY

(LIMITED).

CAPITAL £12,000, IN 12,000 SHARES OF £1 EACH.

First call, 2s. 6d. per Share, which must be paid on application, and no call will be made under two months from date of application, and only as occasion demands.

DIRECTORS.

Major The Hon. O. G. LAMBERT, 7, Albemarle-street, W.
JOHN LONG, Esq., Barnet, Herts, Director of East London Galvanised Iron Company.
H. STEPHENSON, Esq., F.R.G.S., Suffolk-street, Pall Mall, S.W.
WILLIAM THOMPSON, Esq., Plymouth, Managing Director.

BANKERS.

The DEVON AND CORNWALL BANK, Plymouth.
Messrs. BARCLAY, BEVAN, and CO., Lombard-street, London, Agents.

MANAGERS AND SECRETARIES.

Messrs. THOMPSON and SON, 14, Old Town-street, Plymouth.

OFFICES.

14, OLD TOWN STREET, PLYMOUTH.

LONDON OFFICES.

3, NEWMAN'S COURT, CORNHILL, E.C.

PARTICULARS OF THE MINE SETT.

This mine comprises the headland and estate of Trewavas, four miles from Helston, close to the high road, and a short distance only from the harbours of Porthleven and Penzance, on the Mount of St. Michael.

The late Sir Henry T. De la Beche, F.R.S., while engaged in the Ordnance Geological Survey of this district, examined and took particular notice of these mines, and reported that proper development would class them with the richest in the country.

The late Sir Roderick Murchison also expressed a very high opinion of the great mineral wealth of this property.

Between the years 1835 and 1840 the eastern section of the mines was worked under the sea, and upwards of £110,000 of copper ore extracted from an extent of ground 1200 ft. by 350 ft. depth, and ore discovered of immense value, but through working too near the sea the mines were flooded, and from various causes operations were not resumed before March, 1879, when a few adventures took the mine and commenced the search for, and development of, the lodes westward or inland; and it is now proved beyond doubt that the opinions of the leading mining authorities were correct, and that a great, valuable, and lucrative mine has been discovered, equal in all respects, if not surpassing, the eastward or seaward portion of the sett.

The sett extends inland 2400 ft. from east to west, and 3600 ft. from north to south.

There are seven lodes, three of which are of tin, and four of copper, making with each other twelve different intersections, and with three main channels of clay, at sixteen junctions, besides lead and iron lodes, and a valuable bed of China stone, much sought after by China manufacturers.

The seven lodes of tin and copper, with three cross-courses of clay, traverse a bed of highly mineralised argillaceous schist, surrounded by, and resting on, a mass of partly disintegrated granite, enclosing numerous floors or carnes, which apparently act as a matrix for the yielding rich deposits of minerals in great quantities.

The intersections of lodes with lodes, and of cross-courses with lodes, are in themselves highly important, but become greatly more valuable in mineral yielding power when they occur in the disruptive points of granite and killas, as is distinctly evidenced in many mines, and nowhere more clearly than in the old workings of these lands eastward, which gave large returns from one single intersection of copper lode, with clay course running from killas into granite.

The former adventures limited their operations to one lode; the present workings will embrace seven lodes.

The following is an extract from Capt. VIVIAN's letter accompanying his report:—"I recommend driving the cross-cuts named in the report between or near the cross-courses which pass through the richest parts of the old mine; this will intersect the lodes at the most valuable points, and is a very important thing to be done. These cross-cuts will undoubtedly open up some very rich courses of ore, and if driven will cut the lodes at twelve different points; should only one-half of these points turn out to be productive, your property would easily sell for £50,000 (fifty thousand pounds). There is no doubt, in my mind, that all the points will be found productive. It is not rare in this district for courses of ore to be met with worth £200 (five hundred pounds) per fathom. I have seen courses of ore in Great Wheal Vor worth £200 (eight hundred pounds) per fathom."

This mine has been surveyed by nearly all the agents in West Cornwall, amongst whom may be mentioned the late Charles Thomas, of Dolcoath Mine; Capt. Thomas Richards, of the then Prosper United Mines; Capt. Michael Martyn, eleven years agent at this mine's former workings; Capt. Edward Blewett, of Helston; Capt. Joseph Vivian, of Penzance, and Capt. John Curtis, mineral agent to the Duke of Leeds, all of whom were unanimously confident of success resulting from proper development, on account of the coincidence of geological and narrative evidence of the abundance, precise situation, and course of the ores, and facility of working them, with the favourable conditions of the compact and interwoven system of the lodes, and agree on the plan of operation which has been adopted in order to realise large dividends at early date.

As a mineral investment it is unsurpassed.

The district contains the old and well known mines of Wheal Rose, Penrose, Great Wheal Vor, Wheal Lovell, Great Work, Great Wheal Fortune, and others, which have yielded collectively millions of pounds sterling to the shareholders, and the New Penrose Mine, as now worked, is entirely in maiden or unwrought ground.

The major portion of the shares have been privately subscribed for.

Prospectuses and Forms of Application for Shares may be had at the London Offices, or from the Managers, 14, Old Town-street, Plymouth, from whom also further information may be obtained.

The Shares will be allotted in the order of application.

THE

GREAT DYLIFFE MINING COMPANY

(LIMITED).

Incorporated under the Companies Acts, 1862, 1867, and 1877.

Whereby the liability of the shareholders is limited to the amount of their shares.

Capital £20,000, in Shares of £1 each, fully paid up.

First issue, 15,000 Shares.

DIRECTORS.

Capt. H. JERVIS ALFRED, 20, Moorgate-street, E.C.
Rev. JOHN BROWNE, M.A., J.P., United University Club, Pall Mall East.

J. WALKER FORD, Esq., 8, Walbrook, E.C.

A. FIELD, Esq., 50, Leadenhall-street, E.C.

LOCAL MANAGER.—Capt. RALPH DEAN, Dyliffe.

LONDON OFFICES.—20, MOORGATE STREET, E.C.

This company has been formed for the purpose, among other things, of purchasing the lease or leases of the mines known as the Dyliffe, Llechwedd-du, and Esgairgalld Mines, situated in the parishes of Penegoes and Dargwen, in the county of Montgomery, together with the engines, machinery, plant, and materials appertaining thereto, held from Sir Watkin W. Wynn, Bart., at a royalty of 1-14th.

This run of mines is one of the most extensive in Wales, and up to the period of the great discoveries made at the Van Mine, was considered the most productive in Montgomeryshire, the sett being nearly two miles in length by about the same in width, and in it three lodes or veins (besides branches) have been proved and worked upon—viz., the Dyliffe, Llechwedd-du, and Esgairgalld lodes. The former is about 600 yards to the south of either of the others, there being no underground communication between it and them; practically, therefore, they form two separate mines—the Dyliffe Mine and the Llechwedd-du and Esgairgalld Mine, the latter being worked by shafts sunk on the Llechwedd-du lodes and by cross-cuts from these to the Esgairgalld lode. In addition to these is what has been termed the New Dyliffe lode, a discovery branching from the old level of Dyliffe, which so far as seen is a strong and well-mineralised lode.

The present issue of shares will be used principally to open up the new lode; when this is done it is confidently believed that the present monthly output of from 40 to 50 tons lead ore will be more than doubled at a very small outlay. The late company returned from 80 to 100 tons monthly; but, owing to the low price of metals and other causes, it was considered advisable to reduce the staff as much as possible consistent with keeping the mines in good working order—consequently the output under the present management was proportionately decreased.

Mr. Isaac Shone, C.E., M.E., F.G.S., of Wrexham, in a report upon the new lode in these mines, says (*inter alia*):—"I do not think that more satisfactory results have been obtained in connection with any other trial of the like character in the Principality."

Capt. Dean reports:—"It is hardly possible to form a proper idea of the value and importance of this lode until we take into consideration the fact that it runs between, and nearly parallel with, the Dyliffe and Llechwedd-du lodes, and while the two latter have been worked for generations the new lode has been standing there untouched until we sunk a trial mine, which is down about 14 fathoms, and from what has been seen of it there is every reason to believe that it contains as much mineral as Dyliffe or Llechwedd-du ever did."

Samples of this lode can be inspected at the offices of the company. A very important feature in the working of these mines is the great saving of expense through the use of water-power, the mines being provided with very effective water-wheels, one of which is believed to be one of the largest in the kingdom—two of the others being of large size, 45 ft. and 40 ft. in diameter, and a good supply of water exists from large lakes or reservoirs. Labour is very cheap and abundant, and there is ample machinery at all points, including a very powerful pumping-engine, saw-mill, and the general plant for pumping, winding, crushing, and dressing ore. The property has been acquired at a price

which is believed to be very much under the value at cost price of the machinery alone, and is now being worked by the company.
Applications for prospectuses and shares must be addressed to the Managing Director, at the offices of the company, 20, Moorgate-street, E.C.

RICO SILVER MINING COMPANY OF COLORADO.

(LIMITED LIABILITY.)

PRINCIPAL OFFICE, CHICAGO, U.S.

Capital Stock, \$250,000. Shares \$10 each.

Price in England, £2 per Share.

Dividends will be payable in London.

This company offers to investors the opportunity to share in the wonderful prosperity and great mineral wealth of Colorado.

Money received from sale of shares is employed in acquiring mining property from prospectors and in developing mining interests owned by the company at Rico, Colorado, where are found mines of great value—carbonate of silver with gold—rich in assay, and easily worked.

The profits of the company are expected to be from 50 to 100 per cent. per annum—perhaps very much more may be realised.

The President of the company is now in England, and the prospectus, containing more detailed information, may be obtained from him.

Address, J. J. WEST, The American Exchange, 449, Strand, London, W.C.

Cheques in payment for shares should be made payable to order of J. J. WEST, and crossed McCulloch and Co.

EAST WHEEL ELLEN COPPER MINE

(LIMITED).

In the Parish of ST. AGNES, CORNWALL.

CAPITAL £10,000, IN 5000 £2 SHARES.

10s. per share on application, and 5s. per share on allotment; the balance (if required) in calls not exceeding 2s. 6d. per share, at intervals of not less than three months.

Appointment of Directors to be left for the decision of the Shareholders at their First meeting.

PURSER AND MANAGER.

MR. CHAS. BAWDEN, Poldice House, St. Day, Cornwall.

BANKERS.

The CORNISH BANK (Limited), Redruth, Cornwall;

And their Agents,

Messrs. SMITH, PAYNE, and SMITHS, London.

This property, a grant of which has been obtained from E. B. Williams, Esq., M.P., at the low dues of 1-24th, is in close proximity to and adjoining mines that have been immensely productive and profitable, being on the line of continuation of same lodes eastward of the celebrated Wheal Ellen Copper Mine, which no longer than 40 years back figured as one of the greatest dividend-paying mines in Cornwall.

The adit from Wheal Ellen has been continued into East Wheel Ellen, and driven over paying copper ground for a distance of 40 fms., the value of which can be best estimated by stating that £236 worth of copper has been sold from this short drive alone, leaving a lode of copper ore gone down below in unwrought ground producing 4 tons to the fathom. It is intended to erect a steam pumping-engine of 40-in. diameter cylinder to sink below adit into this ore, and so ensure its effectual development, and open up a valuable property for the shareholders.

The sett is 500 fms. long on the course of the lodes, and 400 fms. wide, affording scope for opening out a deep and extensive mine. An elvan course of correspondingly crystalline character to the one in connection with the great body of ore in the district accompanies the East Wheel Ellen lode spoken of, as justified by the important facts stated, more particularly the desirable similarity of the main superstructural characteristic conditions of the lode in question to the lodes of some of the most abundantly productive mines of the district (in the same killas formation as this grant is in), it is to be confidently relied on that comparatively little depth of development is required to ensure the realisation of a copper mine of very great value in East Wheel Ellen. This opinion is justified by analogy to which practically scientific mining authorities will ever attach great importance, having proved it to be the safest guide in forming their opinions of the inherent value of mining properties.

It is only intended by the amount of capital nominated to fix the maximum liability of shareholders, not meaning it to be understood that anything like so much will be required to open out and establish East Wheel Ellen as a permanently good dividend-paying mine, which it is confidently relied on will not necessitate a larger expenditure than £5000, paying for all engine power, mechanical means and appliances, &c.—indeed, everything required, thus gaining a rich prize for comparatively little money.

The shareholders will have the full benefit of the capital subscribed, there being no claim made for promotion money nor free shares, the object being to offer and open out a good mine on the principle of equitably advantageous co-operation, in which legitimate manner the projector prefers to be remunerated by the profits, the cost of leases, and out of pocket expenses being, of course, charged to the company.

One-half of the capital will be privately subscribed, leaving only 2500 shares to be issued, which will be allotted according to priority of application.

This prospectus will appear but twice.

Shares to be applied for by letter, remitting the first payment of 10s. per share either to the Purser or Bankers of the Company.

REPORT OF CAPT. GEORGE JOHNS.

EAST WHEEL ELLEN.

Gwennap, June 9.—DEAR SIR: I superintended the driving of the adit level into this piece of unwrought ground for some time, during which we drove over copper ore for about 40 fms., which turned out from the drive close upon £1000 worth of copper. There is a lode of copper ore gone down in the bottom for this length, worth £30 per fathom. A small steam pumping-engine is required to enable you to sink below the adit in the ore ground, and make immediate returns. There are three other lodes within a short distance of the one driven on, which can be reached by a short cross-cut. At surface they present equally favourable appearances, and when developed will prove a valuable adjunct to the property. I do not know another piece of mining ground requiring so little capital to develop a rich mine, and I congratulate you on the selection of so valuable a concern.

GEORGE JOHNS.

THE
BODEGA,



86, 87, 88,
BISHOPSGATE
STREET
WITHIN.

Wines of the well known brand of the BODEGA are sold in dock sample glasses by the bottle, dozen, and quarter cask. Champagnes of every noted shippers by the bottle and glass. The prices are graduated from the wholesale shipment to the single glass. It is this system which has won for the BODEGA its great success, and which has been pointed out at great length both in the Times and other journals.

The premises stand on the historic site of the old Green Dragon, and are the largest in the United Kingdom devoted to the sale of wines wholesale and retail.

"The convivial spirit of the old house still haunts the spot, and refuses to be exorcised. . . . It is just the place for a Mining Exchange, and by the silent but irresistible law of fitness it seems already to have been so constituted."—*Mining Journal*.—"The coziness of a private club and the economy of the BODEGA are most happily combined."—*Continental Gazette*.

Also at 42, GLASSHOUSE-STREET; 13, OXFORD-STREET; 5 and 6, BUCKLESBURY THE ARCHER, LUDGATE HILL; and 72, MARK-LANE, LONDON.

AUSTRALIA.

MR. B. DAVEY, METALLURGIST, ANALYST, AND ASSAYER of great experience in GOLD, SILVER, COPPER, and TIN MINING, 15 years' practical Metallurgist under Messrs. JOHN TAYLOR and SONS, in the large Silver Reduction Works of the Bella Raquel Company, at the Fabrica la Constante, in Guadalajara, Spain, is prepared to INSPECT MINING PROPERTIES, or advise as to the ERECTION OF REDUCTION WORKS in any part of the Australian Colonies, also to ANALYSE or ASSAY any MINERAL. Boorook Silver Mines, near Tenterfield, New South Wales.

Messrs. J. TAYLOR AND CO. MINING ENGINEERS AND INSPECTORS, 86, LONDON WALL, LONDON, E.C. Have Agents in England, Scotland, Wales, and on the Continent, BUSINESS in VERNBERG Shares.

Notices to Correspondents.

TURBINES.—"T. E. C." (Walbrook).—The applicability or otherwise of a turbine depends entirely upon the head of water at command. The reason underlaid, overshot, and breast wheels are almost, if not quite, exclusively used in Cornwall and Devon is that they have usually only a small fall to deal with. With a high fall and small volume of water the turbine is the most economic form of water-wheel, and it has then the advantage that it will work in the tail water with little or no backlash. Messrs. MacAdam Brothers, of Belfast, would doubt give particulars if applied to (head and volume of water, and horse power required, being given).

Received.—"E. T." (Paris).—"T. E. N."—"W. M." (Exeter).—"Shareholder" (West Chilverton).—"Constant Reader" (Barnstaple): The paper on Cardigan-shire Mines by Mr. Charles Williams, M.E., will appear in next week's Journal.—"Shareholder" (Neath) should have attended the meeting. We cannot publish such a statement; it must be forwarded to the Chairman.—"F. R. S."—"Shareholder" (Flagstaff): Read a letter in another column.—"Investor" should consult a shareholder; the addresses of most of them appear in our advertising columns. We could not furnish "a list of mines which are open to pay regular dividends."—"Shareholder" (Wheal Grenville).—"R. W."

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, JUNE 26, 1880.

COMPENSATION TO WORKMEN FOR INJURIES.

In another part of the Journal we publish a letter from Mr. C. MARKHAM, the managing director of the Staveley Coal and Iron Company, on the question of the liability of employers for injuries to workmen, which appears to us to be most conclusive in showing that the amended Bill of the Government is alike unnecessary and uncalled for. Mr. MARKHAM is an undoubted authority on the subject, and few men have done more to promote the welfare of large bodies of working men and their families than he has done. At Staveley upwards of 5000 persons are employed, and an accident fund has been in successful operation in connection with the mines and foundries for several years. It was established in 1867, by the company contributing 2000*l.* in four yearly instalments, and after that contributing a sum quarterly equivalent to 25 per cent. of the amount subscribed by the members. Since its formation the members have subscribed about 54,000*l.* and the company more than 7000*l.* Members injured receive a weekly payment or a sum of money down, in some instances as much as 100*l.* being paid to one individual or his representatives. Now, were the Bill of the Government to pass this fund in all probability would be abolished, for the employers would not pay twice over, but if the Government could satisfy themselves that provision would be made in cases of accident all difficulties would disappear, and legislation in that direction would not be inconsistent. We quite agree with Mr. MARKHAM as to its being matter for regret that grown-up people should be treated as children, and should be considered by Parliament not competent to make engagements to protect themselves. If such a principle was once established there would be no end to such a class of legislation, which would be most detrimental to enterprise, and would have a powerful tendency to create a reckless indifference to thrift. An accident fund in the hands of the Government is anything but desirable for many reasons, amongst others, the management by a host of officials would be most costly, and very different to what is done at Staveley, where the cost is only 14 per cent. of the amount subscribed. It has been suggested by Mr. MARKHAM that the Government might establish a system of pensions on a sound basis, so that in the case of a person injured, and who was awarded 100*l.*, the Government upon the payment of that sum should allow the sufferer an annuity for life. The idea is certainly a new one, and well entitled to consideration by the Government that appears so solicitous to benefit the working man. In some instances, too, were the Bill as it stands carried it would place working men in a much worse position than they now are. Very many of the accidents that take place in our mines and works have been caused to persons who have contributed to them, and under the Act no provision has been made for them. This shows the advantages of the sick and accident funds now so general in all parts of the kingdom, but the Bill would abolish these, and so terminate the great social work that has been going on for many years by the establishment of funds for meeting accidents of all kinds. Such funds, to which masters and men subscribe, have done much to promote a trusting and harmonious feeling between the two, whilst the Bill would undoubtedly provoke a feeling of antagonism, at least on one side.

At Staveley 24*d.* per week has been found sufficient to provide for deaths and accidents, and the probability is that, taking all works, the sum of 3*d.* weekly would be ample in making all necessary allowance to persons injured or killed owing to accidents. Of that sum the workman might subscribe 2*d.* per week, and the employer 1*d.* Then a fund would be created in which both masters and workmen would have an interest, instead of throwing all the responsibility on the owners when there was no culpability whatever. There would be no difficulty as to the payments, for the sum could be stopped out of the men's wages at the end of each week, as is the case at Staveley. Sick and accident funds it is well known to those who are in any way connected with them are subject to great impositions, and this would be carried on to a serious and demoralising extent were the management of them placed in the hands of Government officials, hence it appears that they could be most efficiently managed by the representatives of the working classes, who are on the spot ready to detect any attempt of fraudulency on the part of worthless workmen. At Staveley the work connected with the fund is confided to a committee appointed annually from the representatives of the collieries and ironworks, the secretaries being two clerks from the office who are paid a small salary for their services. Other employers of labour throughout the country could surely carry out a similar system, so that there should be no need for legislation entirely in the interests of the working classes, and entirely opposed to those of the employers. The bill as it now stands would tell very much against colliery owners in particular, most of whom for the last year or two have been losing money, and really carrying on trade for the benefit of their workpeople. It is, therefore, to be hoped that some such scheme will yet be adopted, as the one that is really fair, and in every way to the advantage of the workman, and might be taken in connection with the establishment of pensions by Government such as we have alluded to.

THE AMERICAN RAIL MANUFACTURE.

We may note one rather remarkable circumstance in connection with the manufacture of steel rails in the United States—that the production has experienced a remarkable expansion during the last 14 years—that is, during the period which has succeeded the close of the great civil war of 1861-5, which destroyed for ever the horrible system of negro slavery. That system was the one great blot upon the fame of WASHINGTON. A successful soldier and a honest patriot, he yet left the country—which he may be said to have in some measure founded—the stigma, the guilt, and the consequences of a great sin. Negro slavery hung like a black cloud over the United States for nearly 80 years; then the long-threatened storm burst in all its fury, and terrible was the convulsion which ensued. However, everything comes to an end in this world, even civil war; and, as the cause of right and justice triumphed in the great conflict of 1861-5, the United States were, after all, the better for the dreadful trouble through which they passed, since it left them purified and regenerated. The war of 1861-5 also left the United States so called a really united nation. Every year, up to 1861, the South appeared to be drifting away from the North; but in 1865 the cause which threatened to divide them was stamped out for ever, as it may be reasonably hoped. National unity has brought the United States unprecedented prosperity? The great Republic has put forth its full strength, and wonderful, indeed, have been the results. One result of the material prosperity which the United States have

employed since 1865 has been a considerable accumulation of capital among the Americans, and a good deal of this capital has been devoted to the establishment of new railroads. Many of these railroads were really required, others were projected before they were needed, and had accordingly to be pronounced "premature," but all involved more or less substantial consumption of railway iron. The effect of the construction of too many "premature" lines in 1872 and 1873 was undoubtedly a serious weakening of American railroad credit for the time; but from this weakness there has since been a solid recovery, and at the present time the manufacture of rails in the United States has acquired an unprecedented importance. In 1849 the Americans made 24,318 tons of rails; in 1859 their rail production had risen to 195,454 tons; and in 1869 (four years after the close of the great civil war) it had been further carried to 593,586 tons. In 1874, notwithstanding the chilling influences of the formidable panic of 1873, it had been still further brought up to 729,413 tons. Last year it attained the unprecedented aggregate of 1,113,273 tons. The United States are now enjoying a larger measure of general liberty and national unity than at any previous period of their history, and the result has been a strengthening of public credit, which has brought with it the happiest results. The increased stability of the public credit of the United States has given an immense stimulus to all useful enterprise among the Americans; capital has accumulated, population has expanded, and not even the crazes of croquet-mongers or the absurdities of politicians have been able to arrest the marvellous material progress of the Republic. It is possible that the rapid advance which was observable in the American rail manufacture in 1879 may experience a check in 1880 or 1881, as it is the tendency of the Americans to rather outdo even a real prosperity. But still there can be no doubt that an important metallurgical industry has been developed in the United States. American ironmasters rely too much upon the "protection," so called, of Congress; still it is creditable to them that they have overcome many natural difficulties, and exhibited great skill and enterprise.

COAL TRADE IN GERMANY.—It will be remembered that towards the close of last year the Westphalian coalowners signed an agreement for a general reduction of the output to the extent of 5 per cent. during the current year (the output for last year being taken as the basis), and that this agreement is now in force, and is said to have contributed to the firmer tone by which the German coal market has been lately characterised. Another meeting was held a few days since to consider the desirability of prolonging the arrangement during the year 1881. About 108 pits were represented. A general wish was expressed that an agreement should be arrived at for restricting production, so as to prevent prices from being influenced adversely by an over-supply, but that it should be so drawn up that no producer may be absolutely prevented from fully satisfying any demand for consumption which may arise. An agreement was adopted according to which each pit owner will be permitted to market the same quantity as is allowed under the agreement for the current year. In the case of deep pits which have been opened since 1870 and are still in process of sinking an exception will be permitted, the owners being allowed to increase their output 20 per cent. against the current year, provided that a maximum output of 450 tons per day is not exceeded. An elective commission of eleven persons is entrusted with the supervision of the arrangement, and this commission is to have the right of conceding to any pit owner the privilege of marketing 10 per cent. more than the stipulated quantity, provided that the commission is satisfied that the circumstances justify such an excess. This clause is apparently designed to meet such exigencies as that of a special demand for consumption. Pit owners whose maximum output is 50,000 tons per annum will be allowed full liberty within those figures. In order that an extension of the markets for Westphalian coal may not be interfered with, coal raised for export beyond seas and actually shipped will not be reckoned as part of the conventional output. The fine for transgressing the stipulations is to be reduced from 2s. per ton, the present penalty, to 1s. per ton. Should circumstances arise of a nature to make a general increase of the output desirable, the stipulations may be modified by a majority at a general meeting of the subscribers, provided that such majority represents at least 75 per cent. of the productive capacity of the pits. The agreement will be binding as soon as it has been formally signed by 90 per cent. of the pit owners of the Dortmund official district. From the tone and character of the meeting it is considered certain that this condition will be fulfilled. The ironmasters of the Rhenish-Westphalian district have also (at meetings held within the last few days) adopted resolutions for restricting production, and appointed a committee to superintend their carrying out.

TOURS IN THE HIGHLANDS.—In order to obtain the rest and change of scenery necessary to compensate for the great wear and tear, bodily and mental, inseparable from the present system of conducting business, by far too many take refuge on the Continent, although there are many districts at home where equal quietude, more lovely scenery, and greater pleasure may be had at the same cost. This observation applies especially to tours in the Highlands, now that Mr. David Macbrayne, of Glasgow, has so vastly facilitated the travelling there by establishing his Highland line of steamers by which all the more attractive spots in the islands of Bute, Islay, Jura, Mull, Skye, and Lewis can be conveniently and cheaply visited. Iona, Staffa, and many other places within the route are so well known by name to all pleasure seekers that the announcement that they are now within easy reach is all that will be required to attract them; and scenery more charming in Loch Lochy, Loch Oich, and the other lochs certainly cannot be found in any part of Switzerland. For the convenience of intending tourists Mr. Macbrayne has issued an interesting Official Guide, so that for a few pence it can be readily ascertained when and where it is most desirable to go.

PRESERVING STEEL FROM RUST.—The composition which Mr. W. C. WOODHAMS of Long Acre has found to give good results is composed of Russian tallow, 22 parts; hog's lard, 75 parts; castor oil, 1-25 parts; camphor, 0-25 part; palm oil, 1 part; annatto, 0-5 part = 100 parts by weight. In the first place the camphor is reduced to powder; the lard and tallow are then heated together, and the oils, annatto, and camphor are added thereto, and thoroughly amalgamated. The composition when cool is ready for use; it may be applied by means of a cloth to the substances to be preserved. In some instances other dye or colouring matter may be used instead of annatto. The composition is effectual in preventing the action of sea-water upon metals. When the composition is to be used for hot climates, and in order to lessen the cost of the composition when it is to be employed for covering large articles, such as machinery, the proportion of lard is reduced, a corresponding amount of white resin and wax being added in its place.

TIN-PLATE MANUFACTURE.—The plates to be operated on are, according to the invention of Mr. JOHN JENKINS, of Clydach, placed vertically in gratings or frames, say 50, more or less, in each; these gratings are put in the pickling pot, which may be sufficiently large to contain at the same time, say three or more gratings with their plates. The acid in the pickling pot may be kept in a state of agitation by any suitable mechanical arrangement, so as to act more quickly and better upon the plates. He places the swilling or washing trough alongside the pickling pot, and when a set of plates has been sufficiently pickled he raises the grating with the plates therein by means of a crane or otherwise and then lowers it into the swilling trough. This trough is alternately filled with water and then emptied so that the plates become thoroughly washed; he next raises the grating with its set of plates from the swilling trough by means of the crane, and deposits it upon an endless travelling chain which runs alongside the said trough; this chain carries the plates still in the grating to the annealing furnace. He dispenses with the ordinary annealing pots and he constructs at the side or other suitable part of the furnace, a passage or channel which for its whole length and height (or nearly so) is formed with holes by which it communicates with the furnace. The chain carrying the plates in their gratings travels through the said passages or channel, and the plates being acted upon therein by the heat of the furnace become properly annealed. The ends of the passage are provided with self-acting doors which open to allow the gratings and plates to pass, and immediately close

behind them, so as to prevent as much as possible a current of air or gases through the said passage. The furnace may be heated either by coal or gas. Sometimes instead of carrying the plates through a heated passage, as before described, he deposits them by means of the crane, after leaving the swilling trough, in a chamber heated by gas or otherwise, and after they have been in this chamber a sufficient length of time to become annealed he again raises them by the crane. The opening by which they enter the chamber is provided with a door or cover, which can be readily opened and closed.

THE MINING AND IRON INDUSTRIES OF THE WEST RIDING.

The vast mineral wealth and iron-producing power of the West Riding of Yorkshire are now being brought under the cognizance of a Select Committee of the House of Commons in connection with a proposed line of railway from Hull to Barnsley. The main object of the promoters of the projected railway is stated to be the development of the resources of about the finest mineral districts in the kingdom, and the conveyance of the mining and metallurgical products direct to the Humber seaboard at a moderate cost. A notice of the valuable deposits of the minerals over a wide area of ground entirely inland, but which it is proposed to connect by a direct line of railway with the port of Hull, cannot fail to be of interest at the present time, when the great railway battle of the session is being fought in connection with it in a committee room of the House of Commons. The West Riding may be said to have its southern extremity at Sheffield, and going northwards includes the towns of Rotherham, Barnsley, Wakefield, Pontefract, Dewsbury, Leeds, Bradford, Halifax, &c. In the districts connected directly with those towns there are rich deposits of ironstone, fire-clay, oil shales, ganister, stone, and coal, the annual production of the latter being second only to that of South Durham, whilst the area of the coal measures within are very much larger. Ironstone is worked in both the southern and western portion of the Riding; most of it, however, in connection with the coal measures. A good deal of greystone has been raised on the estate of Earl Fitzwilliam, at no great distance from the mansion of his lordship, and used at the furnaces at Milton and Elsecar along with the other stone brought from a distance. In the Leeds and Bradford districts it is more extensively worked, being what is termed the clay ironstone, which overlies the coal. The Bowling Company have several mines, and on an average consume one acre of stone weekly. The stone occurs partly in nodules and partly in thin nodular layers in a band of carbonaceous shale. Between about 4 ft. of black shale there are about 10 in. of ironstone. It is not a particularly rich ore, the average percentage of metallic iron, taking all the layers together, is only about 30 per cent., but from it an excellent quality of iron is produced. This is owing to the great care that is taken to free the stone thoroughly from the shale which adheres to it when brought to the surface by exposing it to the air in a flat heap, by repeatedly turning it, and by picking it quite clean. The purity of the Beltor bed of coal, which is used for smelting the stone, further conduces to the same result, and much is due to the skill which results from long experience in calcining, smelting, and forging. The average quantity of ore raised in the West Riding from the argillaceous carbonates and blackband from the coal measures is about 400,000 tons a year. The largest quantity is obtained in the Leeds and Bradford districts, where the pig is converted into plates, bars, and other manufactures.

There are now about 50 blast-furnaces in the West Riding, the largest number being at Lowmoor, where there are eight. The works are well known both at home and abroad for the excellent quality of the iron produced at them, and were founded in 1791. The furnaces are square, and cold-blast, whilst the pig beds are all under cover, and in the foundry adjoining the company cast their own rolls. The greatest care is taken in the making of the iron, and samples of the refined metal are broken, and each charge is sorted according to the number of blows it stands without breaking. In puddling each man's make of iron is carefully examined, and a number is given to him in accordance with the quality, and it has been the rule that the man who gets the lowest numbers has to remain out of work for a week. The Bowling Company have six furnaces, five of them being old fashioned, with open tops, whilst one is close topped and of moderate size. They vary from 48 to 54 ft. in height, the diameter at the boshes ranging from 12 to 14 ft., and they are worked with cold blast. The whole of the pig-iron is refined in fuel refineries, and then worked into boiler-plates, tires, bars, &c. There are five furnaces at West Ardsley, near Leeds, three at Airdale, near Leeds, and two at York-road. In what may be termed the Sheffield district Mr. George Dawes has six furnaces at Milton and Elsecar, where the local and other ores are smelted, a good deal of the pig being rolled on the spot into merchant iron. The Parkgate Company have six furnaces, and the Atlas Company three. In 1873 the production of pig in the Sheffield and Leeds districts was 151,511; in 1875 it was 267,153 tons; and in 1878 it had declined 219,547 tons; and last year it was estimated at 240,000 tons. A considerable tonnage of fine fire-clay is obtained in some places being mined, and in others found in connection with the coal measures.

In the Leeds district the underclay of the Beltor bed coal frequently furnishes an excellent fire-clay. Bricks and other articles are manufactured from it on a large scale at Wortley, near Leeds, and have a high reputation. The clay on analysis gives 68-12 per cent. of silica, and 26-69 per cent. of alumina. Some fine clay is mined near to the Darfield Colliery, Wombwell, and being manufactured into tiles and pipes, and ornamented material is sent extensively to the Metropolis. In the Bradford district, below the Halifax soft bed of coal, the ganister sometimes changes into fire-clay; but beneath the Halifax hard coal the clay is more than 5 ft. in thickness. Ganister, an important mineral in connection with the manufacture of iron and steel, is found underlying some of the coal measures; it is a highly silicious stone, and when ground down and mixed with powdered fire-brick or other similar material forms one of the best fire-resisting substances known. It is used for lining Bessemer converters and for making the holes in crucible steel making. That obtained by the Bowling Company contains about 96-50 per cent. of silica. It is in coal, however, that the West Riding may be said to excel, for it is not surpassed or indeed equalled by any district in the kingdom, whilst considering the comparatively small extent of the field which has been worked, there will be vast deposits left when other districts are exhausted.

In South Yorkshire the coal seams are the most valuable; the Barnsley bed ranges from 8 ft. to 10 ft. in thickness, and is noted for its "hard" coal containing a high percentage of carbon, and consequently well adapted for locomotives, steam vessels, and iron smelting. It is worked continuously between Barnsley and Sheffield, but it thins out and becomes altogether lost north of the former town. Recently it has been opened out near to Hensworth, where there is a virgin field of something like six square miles. The hard coal contains 81-90 per cent. of carbon, and yields about 62 per cent. of coke. The Silkstone, so well known in the London and other markets, is now more extensively worked than it has been, and as the other seams become exhausted will be still more so, seeing that there is an area of many square miles as yet untouched. The coal consists of two beds, averaging about 2 ft. 6 in. each, whilst the dirt parting is only a few inches in thickness. It yields a house coal that can scarcely be equalled, and is well adapted for gas making, giving between 11,000 and 12,000 feet per ton of coal. It is also largely used in the manufacture of coke when ground fine and washed. It is found at its best in the neighbourhood of Barnsley, and is also worked to the south of that town; but to the north it becomes divided by a thick dirt parting, until it is ultimately altogether lost, passing into what is little better than a mass of shale and sandstone. Until recently the workings in the Silkstone coal have been confined to a comparatively narrow belt, but during the last year or two it has been proved to be of good quality below the Barnsley seam, and is now being more extensively raised.

In what is termed the Middle Coal Measures, near Dewsbury and Halifax, there are several beds, including the Haigh Moor, from 3 to 4 feet in thickness; the Flockton thick and thin coal, the Middleton Little and the Middleton Main beds. In the Leeds and Bradford districts there is the Beltor bed of coal, the principal value of which

is its freedom from sulphur and its suitability for iron smelting. In six samples from Bowling the percentages of sulphur were .38, .42, .45, .46, .52, .57. It does not average more than 18 inches in thickness, and it is said to be in a great measure owing to the use of it that the excellence of the Lowmoor and Bowling iron is due. There is also the Lowmoor Black bed, ranging in thickness from 16 inches to 3 feet. The Beltor bed, which lies about 70 yards above the Black bed, at its best contains as much as 6 feet of coal in several beds, separated by thin partings of clay. The total thickness of the coal, however, and the number and thickness of the partings, vary very much from place to place, and give rise to corresponding variations in the value of the seam. Some of the coal is used for steam purposes and some for household use. In the neighbourhood of Leeds only can the seam be called important. The beds which correspond to it in position in other parts of the coal field are more variable in their character, but they are all more or less inferior in quality. The Yorkshire coal field, it may be said, is really a basin, partially exposed, partially concealed, whilst the extent of it under the newer formations has not been determined. The output in 1878 was 15,581,976 tons, but the productive power may now be said to be nearly 20,000,000 tons a year. Iron pyrites in the shape of coal brasses are obtained at some of the collieries, whilst oil shales are raised near Leeds. The Elland Flagrock is considered of marked importance by geologists. The best samples of flagstone from it are said to be unequalled, and in many places yields an excellent building stone, including a beautiful blue freestone at Wortley, near to Sheffield. From the above narrative it will be seen that the West Riding of Yorkshire, as regards its minerals, is not second to any county or portion of a county in the kingdom.

MINERS' ASSOCIATION OF CORNWALL AND DEVON.

The report for 1879, which has already been noticed in the *Mining Journal*, and which is now printed and issued (Falmouth: Lake and Co.), is the most satisfactory which has appeared for many years. For some time past it has been a painful duty to refer to the heavy and increasing debt of the society, but during the year reported on the liberality of a large number of local friends enabled a bazaar and fête to be held, the result of which has been not only to extinguish that debt, but to leave a small working capital. The importance of this financial improvement is far greater than the 250l. which has effected it would represent as a mere cash contribution, for it is unquestionably true that there is a natural disposition to withhold support from every association which is not prosperous, and that such associations are likewise, to a great extent, ignored by those for whose benefit they are intended. It appears to be felt by supporters of such societies that a small contribution to an insolvent concern is mere waste of money, and thus it is permitted to collapse, although surrounded by an ample number (could the feelings of each be made known to all) of friends to make it prosperous and useful; and the dulness of teachers who are poorly and irregularly paid, has a repulsive effect upon students, which renders the collapse still more rapid. In the present case the bazaar, in securing the success of which Mr. and Mrs. Basset took a prominent part, altered the Bank balance from a debit of 74l. to a credit of 110l., as well as paying off a number of arrears, and of course greater spirit has been infused into all concerned. The effect of this will doubtless be noticed in the report for the present year, and it may be anticipated that as subscribers who have hitherto been apathetic will now feel that a small subscription from them will suffice to keep the society prosperous, and that the Miners' Association of Cornwall and Devon confers a large amount of benefit upon the district to which its operations extend the slightest reminder from the secretary will be all that is necessary.

With regard to the report itself, it will be interesting to a large number of readers for the record of successful progress which it contained, but apart from this, both the geologist and the practical miner will find the exhaustive and profusely illustrated paper by Mr. Alfred T. Davies on the Phenomena of Heaves or Faults in the Mineral Veins of Saint Agnes, Cornwall, worth many times the cost (1s. 8d. post free) of the report. This paper extends over about two dozen pages, and gives really all that the practical miner or field geologist will require to know about the subject to enable him to settle many knotty points which may present themselves to his notice in other districts. The Miners' Association of Cornwall and Devon has already done much for the counties from which it takes its name, and now that it has the additional advantage of a little working capital, which, even in the business of education, is always essential, it may be hoped that it will receive so much additional encouragement that its utility will be permanently established.

SELLERS' RIGHTS AFTER SALE OF BUSINESS.

Before the Master of the Rolls, in the case of Booth v. Booth, some interesting points were raised. The plaintiffs were owners of a business called Booth Brothers, and they thought it desirable to purchase from Mr. Charles A. Booth, the defendant in this action, a certain portion of his business also. They asked for an injunction to restrain him from selling coals in prejudice of their business. The agreement entered into was that for the payment of 2000l. the plaintiffs should become the purchasers of the business carried on under the style or title of C. A. Booth and Co., in London and the suburbs. On behalf of the plaintiffs, Mr. Chitty stated that since the agreement had been entered into the defendant had sold coals to Abbott and Co., who were rival traders, and that was a breach of the agreement, which specified that the defendant should not trade within a certain district—that was within a radius of six miles of Charing Cross—in opposition to the plaintiffs. In reply, Mr. Davey contended that the defendant had a right to trade so long as he traded in his own name, and did not solicit the plaintiffs' customers. The defendant's colliery was at Nottingham, and the coals were sold there.

The Master of the Rolls pointed out that the affidavit did not say that Messrs. Abbott and Co. had ever supplied one of their customers, therefore, as far as he could see, there was nothing to show opposition. Surely London was large enough for many hundreds of coal dealers. What was trading opposition? They did not solicit customers, and all that could be said was that they had a customer within a mile of their office. Unless they could show him that Abbott and Co. have supplied or attempted to supply the plaintiffs' customers it did not appear to him that the fact of their being coal dealers and not within several miles of their office is sufficient. The plaintiffs might have a customer dotted at a mile apart all over London; he should not call it in opposition unless there was something more definite than that. The mere fact of their having an office within a mile of their place is not sufficient; but if they showed him they have taken away a single customer of theirs, or ever did, or solicited a customer, it would be different. His lordship ruled that if the coals sold were sold at the pit's mouth and delivered at the pit's mouth then that is no breach. If they sold at the pit's mouth to be delivered in the forbidden district that is a breach. After some further arguments, in giving judgment,

His LORDSHIP said: I am sorry I cannot assist the parties further, I really do not know what the words mean; it is only when I come to a particular instance that I can exercise my judgment, and say whether it is within the words or not as far as I can interpret them; in other words, though I cannot give a definition, I think I can say whether a particular instance is or is not within the agreement. Now, first of all, I think the words show that Mr. Booth is entitled to trade in coals within the district; he is not to trade "in opposition to or in injury to the plaintiffs," and those are the words which create the difficulty. It is quite plain he cannot deal with their customers. That he does not assert a right to do. It is equally plain he cannot deal with their future customers—that is, if they get a customer he cannot deal with that customer, because that would be dealing in opposition to them, although he was not a customer at the time of the agreement, but beyond that it is very difficult to say what the words mean. In the particular instances I have had no evidence at all that the dealing was in opposition to the injury of the plaintiff. The district is very, very large, and as he is entitled to trade to some extent within this very large district, including London and the suburbs for six miles round, of course in every case it cannot be supposed that every selling of coal is in opposition to the plaintiffs, otherwise they would have restrained him from dealing in the district at all. I must endeavour to see what it does mean. Now, it appears in the two instances before me that they were sales not to retail customers at all, but to persons who themselves are coal dealers, and who retail to customers. It does not appear to me on the evidence that either of these persons were customers of the plaintiffs, or likely to be so, or that there was any notion on their part of becoming so, or any likelihood, from the fact of the plaintiffs having an establishment in

the one case within a mile, and in the other case within a mile and a-half, or thereabouts, of their being induced to become the customers of the plaintiffs. I cannot see any fair interpretation of the words "in opposition" which would apply to these two dealers; still less can I see that there is any injury, and that being so, without attempting to define the words, I think neither case comes within the agreement, whatever might have been the intention of one of the parties to it. Beyond that I really cannot assist the parties.

With regard to the use of the name, I think the defendant ought not to send wagons or trucks into London—that is, into the district—with coal with the name of "C. A. Booth and Co.," or "Booth and Company," on the wagons or trucks which contain the coal. I think he ought not to send wagons or trucks within the district with those names upon them. I think he ought to agree not to deliver coal in London with invoices or with advice notes with the words "and Co." upon them; but beyond that I think I cannot give any opinion.

Now, having regard to what has been done, I do not think that there is such a case established as to entitle the plaintiffs to an injunction. In one or two instances mistakes have been made which have been corrected—in one instance before the action, and the second instance deposed to was the two trucks, which was after the writ; and, therefore, the defendant not insisting on his right to do in this case that which I think he ought not to do, and not having done it except by way of mistake or accident before the suit, it does not appear to me that the plaintiffs are entitled to call upon the defendant for an injunction or undertaking. On the other hand, the defendant has, undoubtedly, made these mistakes, and he has gone very near to the infringement of the agreement, and I think he has, to some extent, been the cause of the action being brought. I should not like to say anything which would be unpleasant to the defendant, but I cannot say that he has acted quite handsomely in the matter; however, perhaps he did not thoroughly understand it. I do not think when a man sells a goodwill and a name, or anything of that sort, for 2000*l.* he ought to do all that he can to destroy the value of that which was sold up to the letter of the agreement—that is what I mean by the word "handsomely"—even if he is within his legal right, and probably he will take these observations into consideration as a guide for his future conduct. That being so, I think I may say that his counsel has been well instructed not to ask for costs, because I should not have given them. The only result is that I dismiss the action without costs.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,
MINEOWNERS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

At the end of last month the agent of Wheal Crebor wrote us, and we gave his remarks in the Journal of the 29th: "The 120 east appears to be improving, and the winze below the 108 in the new lode is opening out a splendid piece of ore ground. This winze is improving as it goes deeper. The stopes in the back of the 108 are opening out very well indeed; in fact, the mine on the whole is opening out very well." A few days later, and we noticed it in the Journal of the 12th inst, we were shown the best report and description of the mine we had seen for a long time, from a high and independent authority, specially referring to the 48 and 72 and the new shaft, which was also likely to come into ore. And we added the fact that many hundreds of shares had been purchased by people near the mine. Yet soon afterwards owing to a lot of shares, as we supposed, not having been taken up at the account the price began to droop, and the 48 east and the new shaft disappointing immediate expectation, caused them to fall to 3*½*. Then there was a rally to 4*½*. The agent's report of Tuesday, the 15th, valued the points in operation in the aggregate at 250*l.* per fathom, but reports were rife in the market that the winze below the 108 and other points had fallen off, and heavy "bearing" operations commenced. We at once telegraphed to the mine, and received back the reply—"There is no change in the mine since reported on yesterday." This was confirmed by letter received on the 16th. Still "bearing" and all sorts of adverse reports went on, and late on Friday a telegram was received from the mine at the office which reduced the aggregate value of the points in the mine, as mentioned in the Journal, the chief feature being the failure, temporarily we trust, of the winze from the 108 in the new lode. This winze is going down from the 108 west on the new lode, was opening up good stopping ground, and was a valuable adjunct to the mine, and its sudden failure is much to be regretted, though our hopes of the mine have always been going eastward towards Old Crowndale, and here any day there may be a discovery. The great point of the mine, as we have always impressed upon our readers, is the great course of ore gone over in the bottom of the 120 east; this is a certainty, and to reach it the new shaft was commenced before the discovery of the new lode. It will take some time to get down to the 120, but we hope to see improvements in the new lode before then.

The Wheal Crebor meeting has been called for July 2, and we understand the profit made is equal to a dividend of 2*s.* 6*d.* per share on the 12,000 shares. The fall in copper since the last meeting has affected the sales of ore to some extent. The points in operation in the mine are now valued at 185*l.* per fathom, the chief falling off being in a winze sinking below the 108 *nest*. The lode in the new shaft now yields stones of copper and lead ores, and looks promising. We understand a good many attempts have been made to frighten shareholders and to induce them to sell upon this falling off, and that all shares offered have been bought up. The mine is, and has always been, subject to sudden changes, and another great change for the better may burst upon us ere long. The great feeling of irritation among some of the large shareholders this week has been the fact that this falling off (or the indications of it) was evidently known to speculators in Tavistock some days before any intimation was given of it to the London office; and in the meantime they sent up orders, and sold largely. We have ourselves always placed confidence in the agent, have relied upon his reports, and have generally found them correct, and borne out by results. And it is just probable that the sudden falling off was known to the Tavistock people, probably through the workmen, many hours before the agents ever knew of it, as it seems they were not underground at all on the Thursday. It is notorious that these men are watched after leaving work and on their way home, and just possible they are sometimes paid for early information of changes, good or bad.

At Polrose the shaft will be divided and cased to the 90 this week, and driving commenced to cut the Margaret, or rich lode of the district. The shaft was sunk on the course of the Polrose lode down to the 50, and it yielded to that depth 232 tons of tin, which was sold for 11,584*l.* Then the Margaret lode crossed the shaft and heaved Polrose lode north and into disordered ground. The shaft has since been continued perpendicularly to the 90, and when the Margaret lode has been intersected, a cross cut, as we understand it, will be put out to intersect the Polrose lode 40 fms. below where it was so rich. The mine is supplied with every requisite machinery, erected at great cost, and has upwards of 2000*l.* in hand.

The engine has gone to work at Prince of Wales, and we hope the mine will be in fork in about a month.

NEW PENROSE TIN AND COPPER MINE COMPANY (Limited).—The prospectus of this company has this day been issued. The capital is 12,000*l.*, in 1*l.* shares, of which 2*s.* 6*d.* is only required to be paid on application, and the balance in instalments of 2*s.* 6*d.* per share at intervals of not less than two months. Amongst the directors are some gentlemen of practical mining experience, and the management is in the hands of Messrs. Thompson and Sons, of Plymouth, a firm well known for many years in the mining world, whilst Capt. Curtis, agent for the Duke of Leeds, and Mr. John I. Rogers, of Penrose, is the local manager and agent. The mine has already been set to work, a very large portion of the capital having been privately subscribed through Plymouth, and the recommendations of the late Capt. Charles Thomas, of Dolcoath, are being carried out. The mine as now being worked is in virgin ground, and there are no less than seven tin and copper lodes with 12 intersections, besides iron and lead lodes, and a valuable bed of china-clay stone, now much sought after. The prospects as a profitable mining investment for those with money are seldom equalled. The prospectus contains reports from reliable men well known in the mining industries, and the surrounding mines have yielded collectively millions of pounds sterling to the adventurers. The particulars of the mine set appears on page 722 of this day's Journal.

NEW GOLD DISCOVERIES IN CANADA.—A despatch from Halifax, Nova Scotia, to the New York Herald says:—"Some new gold discoveries have recently been made at Shier's Point, Moser's River, Halifax county, quartz from which has turned out exceedingly rich."

Devala-Moyar Gold Mining Company

(LIMITED).

Incorporated under the Companies Acts, 1862, 1867, and 1877.

CAPITAL £200,000, IN 200,000 SHARES OF £1 EACH.

Of which 61,795 are reserved as part payment to the vendors (the Moyar Coffee Company, Limited).
88,205 Shares have been already applied for, and will be allotted in full at par, and the balance of 50,000 Shares is now offered for subscription at par.

PAYMENT AS FOLLOWS:—2*s.* 6*d.* on application, 7*s.* 6*d.* on allotment, and 10*s.* on the 23rd day of August, 1880.

DIRECTORS.

Sir DAVID LIONEL SALOMONS, Baronet, Broomhill, Kent, and Berkeley Chambers, Bruton-street, W.
PATRICK CARNEGIE, Esq., C.I.E., Ellery-court, Norwood (late Commissioner, Land Revenue, Oudh).
WILLIAM BAXTER, Esq., Director of the Frontino and Bolivia Gold Mining Company (Limited).
*Major-General ALFRED LIGHT,
*WILLIAM JOHN RHODES, Esq., } Directors of the Moyar Coffee Company (Limited).

With power to add to their number.

* These gentlemen join the Board upon the transfer of the Estates.

MINING AND RESIDENT ENGINEER IN INDIA.

R. BROUGH SMYTH, Esq. (late Mining Engineer in the service of the Supreme Government of India, and formerly Minister of Mines to the Government of Victoria).

BANKERS—THE NATIONAL BANK OF INDIA (Limited), 89A, Threadneedle-street, E.C.

SOLICITORS—Messrs. LATTEY and HART, 15, Devonshire-square, Bishopsgate-street, E.C.

AUDITOR—WILLIAM GIMBER GOODLIFE, Esq. (late Accountant General, India Office).

BROKERS—Messrs. HELBERT, WAGG, and CAMPBELL, 18, Old Broad-street, E.C.

SECRETARY (PRO TEM.)—CHARLES FREWER, Esq.

AGENTS IN INDIA—Messrs. ARBUTHNOT and CO., Madras.
Messrs. PEIRCE, LESLIE, and CO., Calicut.

OFFICE,—34, NICHOLAS LANE, E.C.

This company is established for the purpose of purchasing freehold and leasehold estates, comprising over 2000 acres of land, belonging to the Moyar Coffee Company (Limited), situate at Devála, South-east Wynaad, in the Nilgiri district of the Madras Presidency, and for the purpose of working the extensive and valuable gold reefs reported to be on these properties.

The estates are more particularly described as follows:—
Strathearn and Maryland. Freehold (with mines) ... 629-14 Acres.
Wright's land, held under a grant from Mr. Alexander Wright for 68 years from March 1, 1873, no rent payable, and such mining rights as the Moyar Company have ... 380-16
Harewood and Kintail. Leasehold. Held from the Rajah of Nellumbore. Harewood, 99 years from August 17, 1854, at a rent of Rs. 300 per annum; Kintail, 28 years, from May 25, 1862, and renewable, at a rent of Rs. 60 per annum, and such mining rights as are conferred by the agreement of March 6, 1880, mentioned below ... 1045-76

Total ... 2055-06 acres.

The above acreage is given in the Government Ordnance Survey Map, 5th May, 1874; but so far as regards the freehold land, the actual acreage is believed to be considerably more than that stated on such map.

The necessity for the Moyar Coffee Company selling these properties is owing to that company under its constitution being unable to carry on mining operations. The agreement of sale which this company must adopt bears date the 12th day of June, 1880, and is made between the Moyar Coffee Company (Limited) of the one part, and Charles Frewer, as trustee for this company, of the other part. The consideration to be paid is fixed at the sum of £132,000—videlicet, £70,205 in cash and £61,795 in fully paid-up shares of this company. This company acquires under this agreement all minerals and mining rights of the Moyar Coffee Company in, under, or upon all or any of the properties purchased. The purchase also includes over 300 head of cattle, bungalows, furniture, machinery, buildings, estate tools, and all other appurtenances to the property.

With reference to the mining rights on two of the leasehold estates—videlicet, Harewood and Kintail—an agreement, dated the 6th March, 1880, has been entered into by the Moyar Coffee Company with the Rajah of Nellumbore, the lessor of the Harewood and Kintail Estates, agreeing to confer mining rights over any 20 acres thereof, to be selected at a royalty of Rs. 25 per annum per acre, with a proviso that any additional land required for mining may be obtained, if applied for within the next five years. The opinion of the late Advocate General of Madras has been taken as to the right of the Rajah to grant the mining rights in the land comprised in these leases, and his opinion places beyond doubt that the agreement of 6th March, 1880, is perfectly valid and operative.

This company will have power of sub-letting, leasing, or selling portions of the properties for mining, having regard to the large acreage of freehold land, and the limited area which can at one time be worked, these powers may become a source of considerable profit to the company.

The acreage under cultivation on these estates is as follows:—

	Coffee.	Tea.
Strathearn	256 acres	25 acres
Maryland	225 "	
Harewood	200 "	
Kintail		
	681 acres.	25 acres.

DISTRIBUTING CURRENTS FOR ELECTRIC LAMPS.

Among the many recently-introduced improvements calculated to make electric illumination permanently practicable is one by the Société Générale d'Electricité, of Paris, which is specially worthy of attention; it is a disconnecting and commutating apparatus for distributing currents to the lamps, and is so arranged that if one of a number of lamps or groups of lamps should by accident become extinguished, or should its carbons break or be consumed, this lamp is automatically thrown out of circuit and the next in order is brought into circuit. When the lamp is of the Jablochhoff kind there is attached to the clamp that holds the candle a strip made of two metals having unequal degrees of expansion. The strip is bent in U form inverted, and is attached by one of its limbs, presenting its bend near the lower end of candle. When the candle is burnt down to this point, the heat of the voltaic arc acting on the bent strip causes it to partially unbend, so that its free limb comes against a contact screw, and thus establishes a circuit of less resistance by which the electricity passes, without continuing to pass through the residuary carbons of the candle. The free end of the bent strip may have attached to it a spring, which is usually held in a bent position by butting against a stop, until by the change of shape of the strip it is released from the stop, whereupon it springs against the contact screw and short circuits the current.

The commutator whereby the candles are brought successively into circuit consists of a vessel of ebonite or other non-conducting material, divided into a number of parallel compartments, each containing mercury connected by a wire with one of the lamps or candles. Above this vessel is mounted a shaft which extends over all the compartments; it has on it a metallic disc which dips into the mercury of the first compartment, and at intervals along it, corresponding to the distance of each compartment from the next, it has a number of metallic pins projecting from it, these pins being arranged helically on the shaft, so that when the shaft is turned round, as one pin is leaving the mercury in one of the compartments the next pin in order is entering the mercury in the next compartment. On the shaft is an escapement wheel, which is worked by an anchor on the armature of an

80,000 Cinchona trees have been planted during the last four years, and 150,000 plants are now in the nurseries or have been put out. Pending the land under cultivation being required for mining purposes, the cultivation of this produce can be carried on for the benefit of the company.

Mr. R. Brough Smyth, in his recent report to the Government of India, has most fully and carefully reported upon the prospects of gold mining on the various properties inspected by him, and, considering that this gentleman was actually resident on the Moyar Coffee Company's estate during his investigations, the fact that he has consented to give his exclusive services as mining engineer to this company for a period of three years certain, has important significance.

Accompanying this prospectus will be found extracts from Mr. Brough Smyth's report, which specially refer to the properties to be purchased by this company. Mr. Smyth, when alluding to the Strathearn estate, which is freehold property, refers to the opinion that the reef on this property is a prolongation of the Alpha or Skull reef. This view is further supported by Mr. Oliver Pegler, Mining Engineer, in his report, dated March 29, 1880, a copy of which accompanies this prospectus. Mr. Brough Smyth further intimates in his report that the main reef, which shows strongly on this property, may be an extension of the Hamsluck Reef. It is also a matter of moment that Mr. Brough Smyth, when referring to this freehold estate, is able to mention that there is a stream of water at the foot of the hill, and that water could be stored at no great expense. He further adds that it is at this point that further operations might be undertaken with the best prospects of success.

Careful attention is called to that portion of Mr. Brough Smyth's report in which mention is made of the Harewood and Kintail estates, and to the fact of the considerable native workings which appear upon these properties; also to the abundance of timber and streams, which Mr. Brough Smyth reports, during the greater part of the year, carry a good volume of water, the facilities for storing being great.

Mr. Brough Smyth in his report mentions that the surrounding circumstances must serve to determine whether it would be more economical to employ steam or water. The estimates given in his report show that it is necessary to extract about 2 dwts. of gold per ton of quartz crushed in order to pay all costs, and assuming the quartz produces the low result of 5 dwts. per ton only, it can be shown from Mr. Brough Smyth's figures that 100 stamps ought to give a net annual profit of £52,620.

No promotion money will be paid. The total charges for agency and brokerage will not exceed 2 per cent. on the capital of the company, in addition to the legal, advertising, printing, and other expenses incident to the incorporation of the company.

The following, in addition to the before-mentioned agreement for sale and purchase, are the only other contracts which have been entered into:—

An agreement, dated the 31st day of May, 1880, made between R. Brough Smyth of the one part, and Robert Thomas Lattey (as trustee for the company) of the other part, for securing the services of Mr. R. Brough Smyth as mining engineer of this company.

The above agreements, together with copies of the Memorandum and Articles of Association, and Advocate-General's opinion, are open for inspection at the offices of the solicitors of the company.

Prospectuses and forms of applications for shares can be obtained from the offices of the company, or from the bankers, solicitors, or brokers.

In the event of no allotment being made amounts paid on applications for shares will be returned in full.

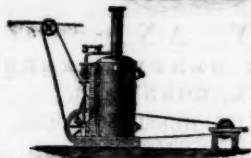
electro-magnet. The armature of a second electro-magnet is attached to a lever, which carries at its end two metal pins immediately over two cups containing mercury. Usually while one lamp of a series is in action the electric current for the lamp passes through the coil of this second electro-magnet, which by attracting its armature keeps the metal pins out of the mercury.

When, however, from any cause the lamp becomes extinguished, the second electro-magnet no longer excited by an electric current passing through its coil, ceases to attract its armature; the armature lever thereupon moves so that its pins dip into the mercury cups, giving passage for the electric current to the first electro-magnet, the armature of which moving the anchor turns the escapement wheel and its shaft partly round. By this movement of the shaft the one of its pins which was in the mercury of one compartment closing the circuit of the lamp that was in action is withdrawn from the mercury, so that this lamp becomes excluded from the circuit, and the next pin on the shaft being now immersed in the mercury of the next compartment closes the circuit for the next lamp in order. Immediately on that lamp coming into action the electric current again passes through the coil of the second electro-magnet, which attracting its armature withdraws the pins thereof from the mercury cups in which they were immersed, and so causes the first electro-magnet to be excluded from the circuit until it is again brought into circuit by the extinction of the active lamp or candle. Thus, as lamp after lamp ceases to act fresh lamps are brought successively into circuit. It is convenient to number these lamps consecutively, and to fix on the shaft an index which as it is moved by the shaft over a dial marked with numbers corresponding to those of the lamps indicates at any time which of the lamps is in action.

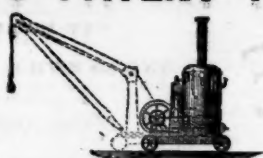
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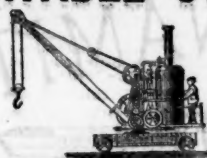
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(2)



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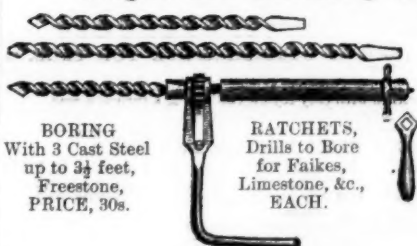
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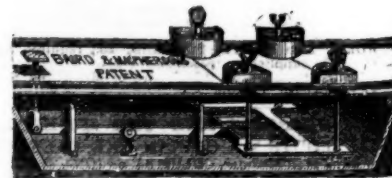


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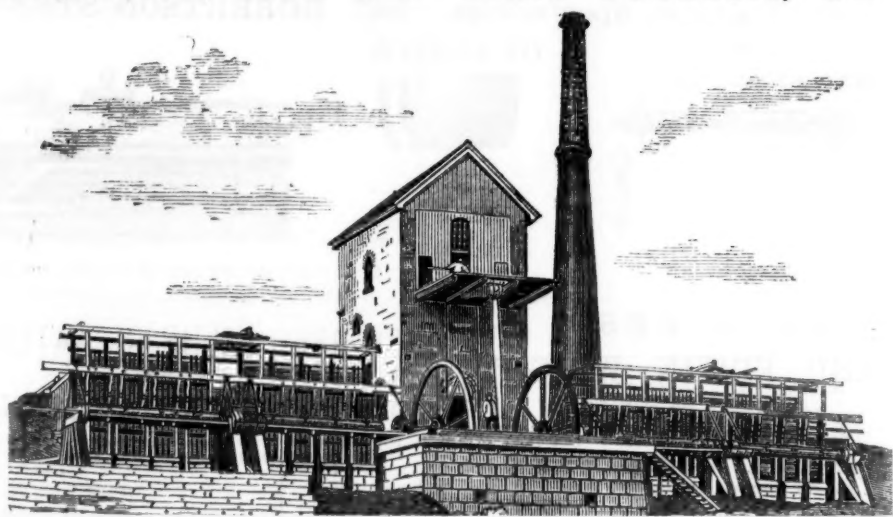
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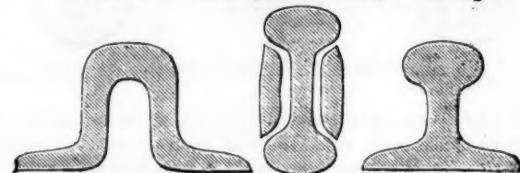
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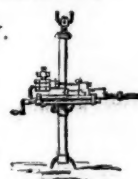
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7500	Parys Corporation, <i>c, Anglesa</i>	1	0	0..
15000	Pentyr Bridge, <i>t, c, Liskeard</i>	0	19	0..
15000	Pytts (also 7500 sh. not issued)	0	19	0..
12000	Pen-y-Orsedd, <i>s, l, Flintshire</i>	1	0	0..
5000	Penhalls, <i>t, St. Agnes</i>	3	17	6..
7000	Pleton, <i>s, l, Holywell, fully paid</i>	1	0	0..
12000	Plymlynion, <i>l, Llandidloes</i>	2	0	0..
10000	Polrose, <i>t, Cornwall</i>	0	10	0..
12000	Port Nigel, <i>s, l, Carnarvonshire</i>	2	0	0..
12000	Port Talbot, <i>t, c, St. Bistoek</i>	0	7	6..
20000	Rashleigh, <i>t, c, St. Bistoek</i>	1	0	0..
50000	Ros. Carnarvon, <i>s, l, Cardiganshire</i>	1	0	0..
30000	South d'Eresby Mountain, <i>l</i>	1	0	0..
30000	So. Devon Unit, <i>c, Buckfastleigh</i>	1	0	0..
512	South Dolcoath, <i>t, c, Redruth</i>	12	5	0..
6000	South Penrath, <i>c, t, c, Gwennap</i>	0	15	0..
6000	South Roskear, <i>t, c, Camborne</i>	8	5	0..
6000	Tolcarne, <i>t, c, Camborne</i>	3	19	0..
40000	South West Crobar, <i>c, Tavistock</i>	0	0	0..
2043	South Wheal Crofty, <i>c, Illogan</i>	16	7	0..
4000	St. Just Unit, Cornwall	2	10	0..
6000	St. Lawrence, Amal., <i>l, Flintshire</i>	2	0	0..
30000	St. Patrick, <i>l, Halkin, Holywell</i>	1	0	0..
30000	Tal-y-bont, <i>s, l, Cardiganshire</i>	1	0	0..
40000	Tamar, <i>s, l, Bealarnot</i>	1	0	0..
2000	Teedale, <i>l, Durham (pref.)</i>	1	0	0..
5000	Trevel Wood, <i>t, Redruth</i>	1	0	0..
6000	Trugo, <i>c, St. Columb</i>	0	2	0..
640	Truro, <i>l, Nersquis, Flintshire</i>	10	0	0..
10000	Tryn-y-Fron, <i>s, l, Card. (5000 l. pd.)</i>	0	10	0..
11000	Un. Van & Glyn, <i>l, c, (451000 other sh)</i>	2	0	0..
1000	Vaughan, <i>s, l, Cardiganshire</i>	10	0	0..
18000	Victor, <i>s, l, Flintshire (21 share)</i>	0	5	0..
12000	West Assheton, <i>l, Carnarvon</i>	1	0	0..
6000	West Assheton, <i>c, Illogan</i>	7	0	0..
6000	West Cardarvan, <i>c, Illogan</i>	3	0	0..
3000	West Craven Moor, <i>l, Pateley Bridge</i>	10	0	0..
10240	West Devon Consols, <i>c, Calstock</i>	1	0	0..
12000	West Goginan, <i>c, Cardiganshire</i>	2	0	0..
12000	West Holway, <i>s, l, Flintshire</i>	1	0	0..
6000	West Killy, <i>t, St. Agnes</i>	0	4	0..
5000	West Mary Ann, <i>s, l, Menheniot</i>	1	2	0..
5000	Westminster Collied, Llanarmon	5	0	0..
20000	West Penrath, <i>c, t, c, Liskeard, l</i>	5	0	0..
12000	West Phoenix, <i>t, c, Cardarvan</i>	5	0	0..
5190	West Poldice, <i>St. Day</i>	5	0	0..
10000	West Vor, <i>t, c, t, c, Breage</i>	2	0	0..
2048	West Wheal Frances, <i>t, Illogan</i>	29	6	35..
2000	West Wheal Peavor, <i>t, Redruth</i>	1	5	0..
1000	West Wheal Towan, <i>c, t, Illogan</i>	25	0	27..
12000	West Wye Valley, <i>l, Montgomery</i>	3	0	0..
644	Wheal Bys, <i>c, t, Illogan</i>	13	15	0..
644	Wheal Bys, <i>c, t, Illogan</i>	13	15	0..
12000	Wheal Coates United, <i>t, St. Agnes</i>	0	10	0..
2585	W. Comford, & No. Tres., <i>c, Gwennap</i>	2	2	0..
6000	Wheal Grenville, <i>t, Camborne</i>	5	0	0..
12000	Wheal Jewell, <i>c, St. Hilary</i>	0	10	0..
2048	Wheal Jane, <i>t, Kea</i>	6	13	10..
2000	Wheal Owles, <i>t, St. Just</i>	7	3	0..
12000	Wheal Russell, <i>c, Tavistock</i>	2	1	6..
4096	Wheal Uny, <i>t, c, Redruth</i>	2	15	0..
3000	White Cliff, <i>s, l, Llanrwst</i>	5	0	0..
24000	Ystwith, <i>t, Cardigan</i>	1	0	0..

bl, blende; c, copper; g, gold; l, lead; s, silver; sh, share; st, steel; t, tin; z, zinc; i, iron; v, arsenic.

* Limited Liability Companies; † quoted on the Stock Exchange.

† I have paid dividends.

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Source: <http://www.fishbase.org> (accessed 12/12/2011).

COMPANIES; GAS, IRON AND COAL, WAGON COMPANIES, &c.

TRAMWAYS

Issue, Shat.	Amount	Particulars	Per. Co.
40000..	5	Anglo-Argentine [L]	all
10000..	10	Barcelona [L]	all
7140..	10	Belfast Street Tramways	all
3050..	10	Birkenhead, Ordinary	all
3000..	10	Ditto, 6 per cent. Preference	all
9290..	10	Bristol [L]	all
25000..	10	Bordeaux Tram & Omn. [L]	all
3200..	10	Chester [L]	all
24000..	10	Dublin	all
14690..	10	Edinburgh Street Tramways	all
35000..	10	Glasgow Tramway & Omn. [L]	all
10000..	10	Grange Loco. and Tram. works	all
7500..	10	Hull Street Tramways	all
7500..	10	Imperial [L]	all
34000..	10	Liverpool Unit. Tram & Om. [L]	all
25000..	10	London [L]	all
15000..	10	London Street Tramways	all
60000..	10	North Metropolitan	all
8000..	10	Nottingham and District [L]	all
15947..	10	Provincial [L]	all
6000..	10	Sheffield	all
5000..	10	Southampton	all
8000..	10	Sunderland [L]	all
1000..	10	Swansea [L]	all
12000..	10	Traffic [L]	all
18500..	10	Tramways of Germany	all
20000..	5	Tramways and Gen. Works [L]	all
40000..	5	Tramways Union [L]	all
25000..	10	Val de Clyde	all

Pd.

Shares.		Pd.	Clm.
Stk.	Anglo-American	100	0 61 1/2
10	Brazilian Submarine	10	0 8 1/2
20	Direct United States Cable	20	0 11 1/2
10	Eastern	10	0 8 1/2
10	East. Exten. Austr. and China	10	0 9
10	Great Northern	10	0 22 1/2
25	Indo-European	25	0 23 1/2
10	Mediterranean	10	0 28 1/2
8	Reuters	8	0 9 1/2
Stk.	Submarine	100	0 23 1/2
10	West India and Panama	10	0 1 1/2
20	Western and Brazilian	20	0 18 1/2
\$1000	West. Union, 7 p.c. Mort. Bonds	\$1000	180 1/2

MISCELLANEOUS			
25	Australian Agricultural	25	10 78 1/2
10	Brighton Aquarium (L)	10	0 4 1/2
Stk.	Cent. of New Jersey Con. Mort.	100	0 104 1/2
5	City of London Real Property	12	0 3 1/2
5	Diamond Rock Boring	4	10 3 1/2

WAGON COMPANIES

WAGON COMPANIES.				
<i>Shares.</i>		<i>£s.</i>	<i>d.</i>	<i>Cts.</i>
10	Birmingham Wagon Co. [L]	£10	0	15%
10	Ditto 2nd issue	10	0	18%
10	Ditto pref., 6 per cent.	10	0	11%
20	British Wagon Co. [L]	10	0	—
10	Gloucester [L]	10	0	8%
10	Ditto 5th issue	5	0	1%
10	Met. Rail. Car. & Wagon Co. [L]	5	0	2%
5	Ditto pref., 6 per cent.	5	0	1%
10	Midland Rail. Car. & Wag. [L]	10	0	11%
10	Ditto pref., 6 per cent.	10	0	5%
20	North Central Wagon Co.	20	0	—
5	Rail. Car. [L] Oldbury	5	0	3%
5	Ditto pref., 6 per cent.	5	0	5%
20	Sheffield Wagon Co. [L]	15	0	1%
20	Bansea Wagon Co. [L]	10	0	2%

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